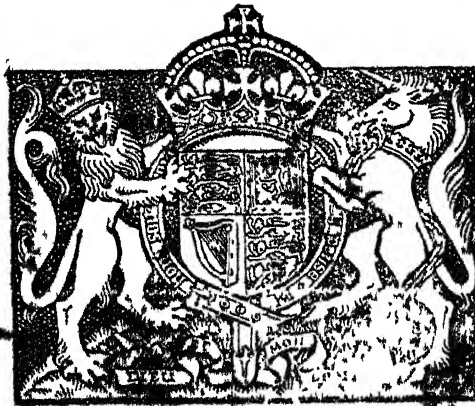


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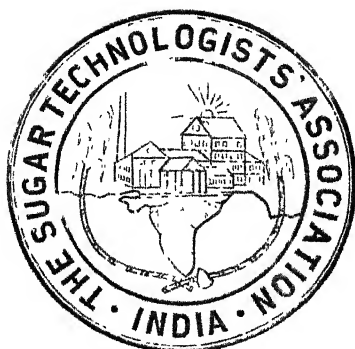






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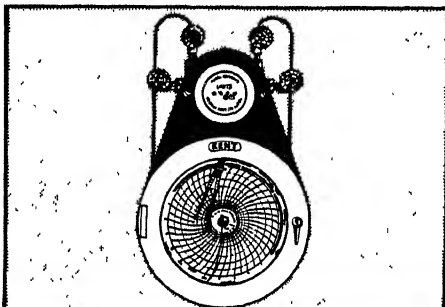
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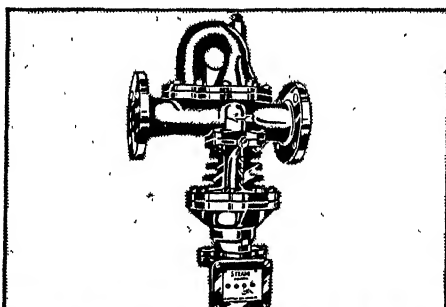
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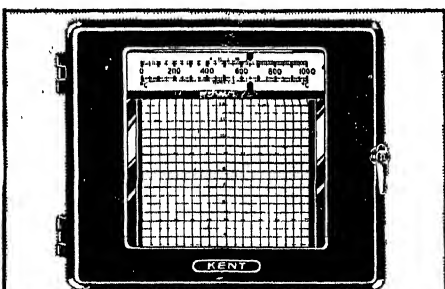
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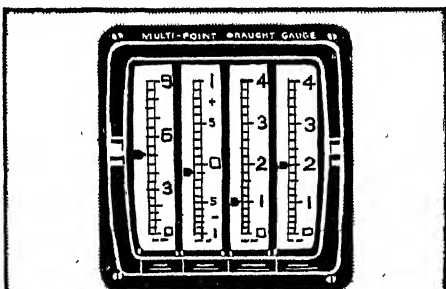
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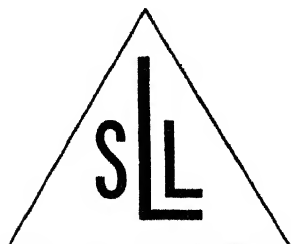
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## PREFACE.

The Sugar Technologists' Association of India started the publication of the Indian Sugar Manual since the year 1940. This is the seventh issue of the Manual. This issue is broadly divided into two parts. Part one deals briefly with the World Sugar Situation and part two with the position of the sugar industry in India in 1949. Thus the Manual provides a factual study of the Indian Sugar Industry in world context. Relevant statistics in regard to the Gur industry of India and those concerning the labour problem of the sugar industry are also included.

The sugar industry in India during 1949 attracted public attention on a wide scale. Firstly the industry came in for a detailed examination at the hands of the Indian Tariff Board in view of the impending termination of the period of protection on March 31, 1950 and secondly during the latter half of the year the country experienced an acute shortage of sugar the like of which it had not experienced before. While there was a general feeling of plenty in the beginning of the year, by the month of August the stocks of sugar were found to have suddenly disappeared. How did such a situation come about was almost a mystery for all. The interests concerned viz. the manufacturers, the merchants and the provincial and central governments laid the blame at each other's doors while the consumer suffered in bewilderment. The detailed inquiry of the Tariff Board into all aspects of the sugar industry and the various attempts made for solving the mystery of the so called 'sugar muddle' have however brought to light many obscurities of the sugar industry and have put the industry on a healthy path. If due note is taken of the many ills and drawbacks from which the industry suffers and the various interests concerned act with vision and foresight the industry, with which is vitally connected the economy of the country, may yet pass out from the morass in which it finds itself today.

It is our belief that a statistical study of the various aspects of the industry is indispensable for a proper understanding of the problems of the industry and to this end the Sugar Technologists' Association of India has been serving the cause of the industry by publishing all available information concerning the sugar industry through the medium of the Indian Sugar Manual.

The Association is thankful to Shri R. S. Agarwal M.A., B. Sc., L.L.B. of the Indian Institute of Sugar Technology and Shri P. N. Mathur M. A. of the Labour Department, of the U. P. Government, Kanpur, for assisting the Association in the task of compiling and writing out this issue of the Manual.

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N. C. Varma.  
*Honorary Secretary.*



## CHAPTER I.

### WORLD SITUATION

The dominant feature of the world's sugar economy during the last few years has been the tendency of increasing sugar production all over the world. The recovery of world sugar production made admirably quick progress after World War II. From all the news received during recent months it is learnt that plans for increased sugar production have by no means been reached in many sugar countries of the World but it cannot be doubted that with normal weather conditions, all those plans may become reality and the world sugar production may exceed the limits of all times to come.

The administration of world sugar distribution during the war years and in the post-war period to 1st April, 1948, was carried out by the Combined Food Board and its successor, the International Emergency Food Council, and since the suspension of control by the latter organisation, trade has been negotiated directly between the countries concerned. It was the opinion at that time in authoritative councils that the European countries participating in the European Recovery programme were planning not only to regain their pre-war levels of sugar production, but to expand output considerably by 1950-51; and with this expansion and the recovery expected in Far-Eastern countries and by the important group of western producers it was obvious that a substantial increase in consumption would be necessary if the accumulation of an embarrassing surplus was to be avoided.

The supply position is, however, not yet serious, but there have been introduced into the situation economic and financial obstacles, the solution of which will call for sage consideration and the application of liberal and equitable policies if another severe dislocation of the world sugar market is to be obviated. Hitherto the world has been ruled by shortages and trade has been limited by available supplies. But the limiting factor in sugar trade is becoming less material and more financial. Supplies are more freely available and in each country the demand, backed by local currency, is there. What is in the way of free trade is the maze of exchange controls necessarily imposed by various Governments because they must balance their accounts. The major obstacle is the inconvertibility of currencies. What is now happening has come more quickly than was expected. Changing economic conditions throughout the world are exposing the weaknesses of many nations' economic, and the axiom that it can avail a country very little to produce surpluses of foodstuffs, or other goods, if they are not saleable, or if they must be sold at a loss, is again self-evident.

These factors support the opinion already quoted; and if there is to come the freer trade in sugar which many producing countries are seeking, the policies that will make this possible of attainment must be framed, though it is hard to see how progress can be made towards an early successful negotiation of a new International Sugar Agreement in the midst of the dollar crisis of the sterling area without a solution on the convertibility of currencies.

### A SHRINKING WORLD MARKET

"Currency difficulties are providing a spur to economic nationalism and it is probable that the history of the inter-war period may be repeated so far as this commodity is concerned, though with rather less spectacular effect on the free market outlet. After the first World War currency difficulties were certainly not so deep-seated as they

are today, but general impoverishment was the inevitable consequence of over four years of war, added to which there had been a considerable rise in prices in the world open market which culminated in the exaggerated levels reached in 1920. A sharp reaction followed, it is true, but the seeds of economic nationalism had been sown, and the steps which many countries took to become less dependent on foreign supplies had the effect of reducing the open market outlet from its former level of over 10,000,000 tons to barely 6,000,000 tons in the 1929-30 season. It should be mentioned, in passing, that this greater independence of outside sugar supplies was not without its strategic advantages for certain countries.

"The slump in prices which accompanied the world depression during the second half of the inter-war period did not arrest the trend towards national self-sufficiency, for the world open market shrunk further, and just prior to the war was less than 3,000,000 tons.

"Some part of the contraction of the free market was, of course, occasioned by means of tariff concessions. It is interesting to note that, as a result of the institution of Duty Preferences in Great Britain in 1919, the subsequent additional duty advantages accorded to sugar, some 1,400,000 tons were added to cane sugar production within the British Empire by 1937.

"It was in India where the bulk of the loss in the free market during the second half of the inter-war years occurred, for, stimulated by protective duties, the production of white sugar direct from cane, and refined from gur, which, during the 1919-20 season totalled about 68,000 tons and was little more than 150,000 tons in 1930-31, attained a figure of nearly 1,140,000 tons in the 1936-37 season.

"Whilst the considerations which may work towards a reduction of the open market outlet are today more urgent than they were nearly 30 years ago, the currently estimated free market of around 4,000,000 tons does not offer the scope for such drastic reduction as was then presented. Moreover, consumption in many important areas is still under control and is probably capable of considerable expansion if and when, in more favourable economic circumstances, that control is removed. How this potential demand will be satisfied remains to be seen. In the absence of an early improvement of world currency conditions (and any such expectations which could appreciably influence the world sugar economy would be unreasonably optimistic) the demand may be met in several ways, namely: by expansion of the domestic industry; by increased Colonial output; and by increased production on the part of free market producers whose currencies present no serious problem to would be consumers.

"The adoption of either of the two first-named means of satisfying the demand would, of course, add nothing to the free market. As to the third method, Indonesia and perhaps to some extent Taiwan will, it is hoped, eventually take their places as important suppliers in the open market. Pre-war Java's participation in the free market was around 1,500,000 tons, whilst her capacity prior to the Chadbourne Scheme at one time permitted the export of over 2,500,000 tons. As to Taiwan, whilst that island (capable prior to the war of an output of over 1,400,000 tons) will now meet China's needs, a proportion of its sugars will no doubt in due course figure regularly amongst the free market supplies of Japan, who formerly absorbed practically the whole of the island's output, and may indeed overflow to other countries. Already about 100,000 tons have been purchased from Taiwan for Japanese consumption.

"Some of Indonesia's natural markets in the Far East are at present being supplied by British Commonwealth sugars under arrangement with the Ministry of Food. It is obvious that such an arrangement can only be temporary one. Those markets were in the habit of buying to the best advantage in the open market prior to the war, and as soon as sugar is available they will again seek that source for their domestic needs. The preferential supplies thus released will then become available to their normal markets, viz., the United Kingdom and Canada.

"It will be evident from the foregoing that there are many problems, some of which are inherited from pre-war days, which will eventually have to be faced by the world sugar industry, not the least of which may be a surplus of open market sugar. As already mentioned, the potentialities for consumption expansion are enormous, but it appears too much to hope that that degree of recovery of international spending power will be attained in time to obviate the necessity of some curb on output of free sugar, whether voluntary or otherwise."

### DEVALUATION AND SUGAR

On September 18th, 1949, Sterling was devalued from \$. 4.03 to \$. 2.80. This move was quickly followed by a corresponding alterations to a greater or lesser extent by the remainder of the soft currency area except Pakistan. At this stage it is not possible to forecast the effects of this move on the World market for sugar, though obviously gulf between the hard currency exporters and the soft currency importers has been made even wider. Sugar imports will clearly be restricted to a minimum so long as dollar deficits continued. Rationing may be reimposed where discontinued.

The effect of devaluation on sugar consumption remains to be seen. There will presumably be a general marking up of domestic prices in term of respective currency of those countries which depend on import from hard currency area. Reverse is also the case and the only instance is Pakistan. The fact that India, unlike Pakistan has devalued, gives the latter country increased spending power in India, where high production costs had rendered her sugar uncompetitive with other exporting countries".

At the present time the Sterling area is making plans to increase sugar production as far as possible in the direction of self-sufficiency. The U.K. has also given assurance to the Dominions and Colonies to buy all their surpluses at "reasonably remunerative prices". The soft currency areas in spite of the strong representation from the other side are not in a mood to abide by the restrictive quota system of the lines of the pre-war, International Sugar Agreement.

### PRODUCTION.

The world production of Sugar during the last ten years from 1940-41 to 1949-50, both from cane and beet are given in Table No. I.

TABLE NO. I

Year	Cane Sugar (1000 Tons)	Beet Sugar	Total (1000 Tons)
1940-41	19,327	11,074	30,401
1941-42	18,868	9,243	28,111
1942-43	17,842	8,825	26,667
1943-44	18,925	7,739	26,664
1944-45	16,397	6,546	22,943
1945-46	16,531	5,502	22,033
1946-47	18,776	9,154	27,930
1947-48	20,300	8,878	29,178
1948-49	21,213	10,601	31,814
1949-50	21,352	11,067	32,419

In 1948-49 world sugar production totalled 31,813,545 long tons, raw value against 29,177,582 tons in 1947-48 and 28,676,352 in 1938-39. As compared with 1947-48, this meant an increase of 26,35,963 long tons or 9.03 per cent. It also exceeded the 1938-39 production. The normal pre-war output of sugar was about 30 million tons. Table No. 2 gives the production separately for cane sugar and beet sugar Continentwise.

TABLE NO. 2  
Willet & Gray's Estimate—1,000 long tons.

Continent Year	1949-50	1948-49	1947-48	(Production in 1000 long tons) 1941-42
<b>Cane Sugar</b>				
America	12,477	12619	12,683	9,632
Asia	6,305	6,053	5,547	7,158
Australia	1,090	1,079	748	885
Africa	1,460	1,443	1,306	1,185
Europe	20	19	16	8
Total Cane Sugar	21,352	11,213	20,300	18,868
<b>Beet Sugar</b>				
Europe	9,582	9,419	7,252	7,834
United States	1,375	1,102	1,556	1,320
Canada	110	79	70	89
Total Beet	11,067	10,601	8,878	9,243
Grand Total	32,419	31,814	29178	28,111

### America.

The striking point of 1948-49 production was the large decrease of beet sugar production of the United States. The sugar production of the American continent depends principally on Cuba's output. It is generally assumed that the 1947-48 production of 5,959,775 long tons in Cuba cannot be far exceeded in the future if there are no fundamental changes with respect to the cane area and the producing capacity of the factories. The future size of Cuba's production will depend on the market possibilities in the United States and the free world market. The present situation points rather to a lower than to a greater production in Cuba.

The United States domestic beet and cane sugar production was rather low in 1948-49. It seems probable that the domestic production will show better results during the next few years. A fundamental change of the sugar situation, is however, not to be expected from this side.

The 1948-49 production of Louisiana, Puerto Rico, Hawaii, the Br. West Indies and Mexico was, so much higher that the heavy decrease of production in Cuba could nearly be equalled.

In Chile, plans are under discussion to found a larger beet sugar industry in order to make the country independent of foreign sugar imports. On the whole, 10 beet sugar factories are planned. A realisation of these plans would principally affect the sugar industries of Peru and Brazil which have been the main source of supply for Chile.

In 1948-49 South American production shows in the different countries and for the whole continent only slight changes.

### **Africa.**

In Africa, the increase of sugar production made further progress in Mauritius and the Union of South Africa, both countries with secure markets at home or within British Empire. In South Africa an Expansion Committee was set up in 1947. The short term problem has been restricted to the period 1950-51, and a production target of 725,000 short tons of sugar has been agreed upon for the end of this time. To reach this target an additional, 1,000,000 tons of cane will be required. As all the increased sugar production will be locally consumed the expansion of South Africa's production will be of no importance for the world market.

### **Asia.**

In Asia, Java, the Philippines, India and Famosa had a much higher production than in 1947-48. The rebuilding process has however by means been finished and it can be assured that the Asian Sugar production will be increased to the level of pre-war years. This is essentially true of Java, the Philippines and Formosa.

The sugar industries of the Far East show a quite different picture. *Java* has to be mentioned in the first place. Reports on planting for the 1949 crop show cane acreage of 22,400 hectares in the areas under Dutch control. The sugar production is estimated at 300,000 ton. To that, about 100,000 tons produced in the areas of the Republic may have to be added, so that the total production may reach 400,000 metric tons whilst 1575,353 tons were produced in 1938-39. The further development of Javanese Sugar production will principally depend on the political situation. If the Dutch are successful in maintaining peace, it can be assumed that Java's sugar production will show an increasing tendency during the next few years. The further development of Javanese sugar production will be of the greatest importance for the world market as any quantity above 300,000 to 400,000 tons would be available for exports, and an export of 500,000 tons would have terrible consequences for the narrow world Sugar market and sugar prices.

### **The Philippines.**

The Philippines could nearly double their production in 1948-49 as compared with 1947-48. In 1949-50, too, a further increase can be expected. The tendency of an increase of the Philippine Sugar production will not be stopped until the quantity produced can fully meet the import quota of the United States as well as home consumption i. e. about 1,000,000 tons. In 1947-48 about 355,280 tons were produced.

### **British Empire:—**

There appears to be no likelihood of any fundamental change in the estimate of sugar production during 1948-49 in the British Colonial Empire as compared to the previous year. The total production is estimated at 1,405,140 metric tons. However in 1952-53, the production of British Colonial Empire will considerably exceed the above mentioned quantities. This development will be assisted by the statement of the British Ministry of Food that "Britain would guarantee sugar producers in Australia, South Africa and the colonies an outlet for exportable surplus sugar for the next five years. This assurance covered crops from 1948 to 1952 inclusive".



## Australia.

The Australian authorities have been engaged in talks with the British Minister for Food discussing proposals for stepping up of Australian sugar exports to 500,000 tons per year. In order to carry out such exports the Australian output has to be increased to one million long tons. The representative of Australia is reported as estimating that such a volume of exports could be achieved in the course of the next few years. In fact, estimates of the current crop are not far from that figure.

## EUROPE.

The production in various countries of Europe in 1948-49 as compared with two previous years and the year 1940-41 is given in Table No. 25 under Europe. Table No. 3 gives the production of both cane sugar and beet Sugar countrywise.

**TABLE NO. 3**  
**SUGAR CROP OF THE WORLD.**  
Willett & Gray's Latest Crop Estimates—Long Tons.

	1949-50	1948-49	1947-48	1946-47	1945-46	1941-42
U.S. Louisiana	450,000	354,726	265,118	295,650	329,998	287,716
Puerto Rico	1145,000	1140,609	989,518	971,322	811,686	1024,633
Hawaiian Isl.	870,000	839,300	745,631	778,738	607,208	776,874
Cuba	5000,000	5145,644	5959,775	5757,436	3996,391	3396,900
Dominican Republic	460,000	468,954	414,974	458,077	451,671	481,579
Jamaica	251,500	237,744	192,814	170,255	177,886	155,262
Mexico	675,000	695,500	607,617	499,541	423,606	424,090
Peru	490,000	470,000	477,800	411,723	404,081	489,243
Argentina	575,000	565,471	606,129	634,729	449,147	405,825
Brazil	1500,000	1648,000	1529,410	1470,588	1269,420	1208,048
<b>TOTAL AMERICA</b>	<b>12476,500</b>	<b>12618,865</b>	<b>12682,882</b>	<b>12345,175</b>	<b>9843,268</b>	<b>9631,475</b>
British India (Gur)	3500,000	3375,520	3569,000	3327,000	3672,680	2948,280
(White)	1300,000	1165,000	1229,800	1075,000	1084,457	941,500
Java	225,000	235,831	80,000	25,000	20,000	1330,000
Taiwan(Formosa)	550,000	621,876	263,289	57,000	84,820	1110,812
Philippine Isl.	700,000	625,000	355,280	75,458	12,837	553,670
<b>TOTAL ASIA</b>	<b>6305,000</b>	<b>6053,227</b>	<b>5547,369</b>	<b>4589,458</b>	<b>4938,579</b>	<b>7158,271</b>
Australia	950,000	942,561	605,054	552,158	665,844	748,217
Fiji Islands	140,000	136,000	142,857	115,324	64,992	136,419
<b>Total Aust. &amp; Polynesia</b>	<b>1090,000</b>	<b>1078,561</b>	<b>747,911</b>	<b>667,482</b>	<b>730,836</b>	<b>884,636</b>
Egypt	200,000	207,000	222,505	195,818	177,835	156,250
Mauritius	425,000	395,067	348,531	291,060	139,050	323,680
Natal and Zululand	545,000	542,719	457,147	423,900	493,839	403,678
<b>Total Africa</b>	<b>1460,000</b>	<b>1443,386</b>	<b>1305,820</b>	<b>1164,042</b>	<b>1007,719</b>	<b>1185,454</b>
Europe Spain	20,000	19,000	16,000	10,000	10,554	8,446
<b>Total Cane Sugar Crops</b>	<b>21,351,500</b>	<b>21,213,039</b>	<b>20,299,982</b>	<b>18,776,157</b>	<b>16,530,956</b>	<b>18,868,282</b>
<b>TOTAL EUROPE</b>	<b>9582,000</b>	<b>9419,174</b>	<b>7252,124</b>	<b>7754,976</b>	<b>4361,088</b>	<b>7833,863</b>
U.S. Beet*	1375,000	1402,075	1555,529	1306,505	1067,848	1319,807
Canada Beet*	110,000	79,285	69,947	91,965	73,237	89,415
<b>Total Beet Sugar Crops.</b>	<b>11067,000</b>	<b>10600,534</b>	<b>8877,600</b>	<b>9153,446</b>	<b>5502,173</b>	<b>9243,085</b>
<b>Grand Total Cane and Beet.</b>	<b>32,418,500</b>	<b>31,813,545</b>	<b>29,177,582</b>	<b>27,929,603</b>	<b>22,033,129</b>	<b>28,111,367</b>

\*Refined Sugar.

## WORLD SUGAR CONSUMPTION 1948-49.

Sugar consumption is the basis of the whole sugar economy. Sugar Consumption regulates the acreages devoted to sugar beet and sugar cane cultivation, the size of production in the long run, the movement of sugar and last but not least, sugar prices. When Sugar consumption decreases, prices generally decrease too, and production has to be curtailed. During recent years very often it seemed as if this old principle would be suspended. However, it has again become reality. Such a development can be considered as sound. A record of world sugar consumption during recent years is given below in Table No 4. The consumption by individual countries of Europe is given in Table No 28.

**TABLE NO. 4**  
**World Sugar Consumption.**  
(Metric tons, raw value)

	1948-49	1947-48	September-August	
			1946-47	1937-38
<b>North and Central America.</b>				
Cuba	2,10,000	208,000	206,000	158,368
United States	6,713,033	6,892,035	6,108,842	5,598,923
Puerto Rico	91,000	86,000	86,000	62,000
Hawaii	32,000	30,000	30,000	16,000
Br. West Indies	103,100	98,085	74,626	48,314
Canada	675,000	669,925	513,588	512,177
Mexico	578,000	558,000	485,000	316,000
Other Countries	197,937	189,073	172,070	121,201
<b>Total</b>	<b>8,600,070</b>	<b>8,731,118</b>	<b>6,676,126</b>	<b>6,832,983</b>
<b>South America.</b>				<b>404,100</b>
Argentina	615,000	611,811	581,429	
Brazil	1,550,000	1481,537	1,336,158	1,021,286
Peru	180,000	172,037	163,114	88,331
Chile	155,000	150,000	152,700	124,391
Other Countries	370,000	356,791	328,864	211,000
<b>Total</b>	<b>2,870,000</b>	<b>2,772,175</b>	<b>2,562,265</b>	<b>1,849,108</b>
<b>Africa.</b>				
Morocco, Tunis, Algeria	265,000	260,000	233,000	293,108
Mauritius	20,000	18,000	18,000	13,263
Union of South Africa	575,000	554,900	490,351	270,219
Egypt	200,000	192,580	171,486	152,000
Sudan	58,000	56,173	22,365	32,000
Br. East Africa	60,000	53,017	57,788	45,000
Other Countries	229,000	198,460	163,336	124,801
<b>Total</b>	<b>1,407,000</b>	<b>1,333,130</b>	<b>1,156,326</b>	<b>930,391</b>
<b>Asia.</b>				
India/White	1,350,000	1,300,000	1,103,000	1,311,415
Pakistan Gur.	1,715,000	1,813,000	1,816,000	1,709,000
Java	320,000	350,000	400,000	321,097
Philippines	175,000	150,000	125,000	75,000
Japan	350,000	550,000	60,000	1,145,630
China/Formosa	895,000	653,597	320,883	911,000
Iran	160,000	150,000	109,503	107,593
Other Countries	680,000	654,685	454,399	646,500
<b>Total</b>	<b>5,645,000</b>	<b>5,621,282</b>	<b>4,388,782</b>	<b>6,227,235</b>
<b>Oceania</b>				
Australia	510,000	486,000	450,000	363,664
New Zealand	90,000	88,000	80,000	83,820
Other Countries	12,000	10,000	8,000	6,000
<b>Total</b>	<b>612,000</b>	<b>584,000</b>	<b>538,000</b>	<b>453,484</b>
<b>Europe excluding Russia</b>	<b>8,594,000</b>	<b>7,306,962</b>	<b>6,508,849</b>	<b>9,202,867</b>
Russia	2,000,000	1,650,000	800,000	2,372,369
<b>Europe including Russia</b>	<b>10,594,000</b>	<b>8,956,962</b>	<b>7,308,849</b>	<b>11,575,236</b>
<b>World Sugar Consumption</b>	<b>29,728,070</b>	<b>27,998,668</b>	<b>23,630,348</b>	<b>27,868,437</b>
<b>World Sugar Production</b>	<b>30,867,184</b>	<b>27,552,971</b>	<b>25,557,982</b>	<b>28,084,467</b>

## EUROPE.

After the terrible war, all nations are gradually regaining their economic strength. The population is increasing. These two factors will favour a further increase of sugar consumption. Furthermore, it must be stressed that Great Britain, Germany, Austria, Czechoslovakia and some other countries consumed less sugar in 1948-49 than in 1937-38. This decline may be estimated at 850,000 tons. If all obstacles could be eliminated, those countries would certainly consume this quantity and even much more. The main obstacle is the deficiency of hard currency. It is not believed that these obstacles can be eliminated in 1949-50, but, during the next five years, it can be expected that European sugar consumption will show an important expansion. The time is not too far when European sugar consumption, excluding Russia, will reach 9.5 million tons or more.

Russian consumption will depend to a large extent on home production. It can be assumed that Russian production will also be increased and likewise Russian consumption. Therefore, we believe that, under normal conditions, European consumption, including Russia, will show an increase of about 1.5 million tons in the near future.

## North America.

Sugar consumption of North and Central America is determined mainly by the sugar consumption of the United States. The September-August 1948-49 consumption of the United States is estimated at about 179,000 metric tons, raw value, lower than the consumption during the same period in 1947-48. This is based on lower sugar deliveries during the summer of 1949. Consumption figures of all other countries will probably be higher than in 1947-48.

Regarding future sugar consumption, it must be stated first that the North and Central American countries have not been directly afflicted by war. Life in these areas has become more and more peace like. There, also, sugar consumption during the last two years has reached a more normal level than in Europe. Taking into consideration these facts, it can be assumed that the development of sugar will not show unusual tendencies as may be expected in Europe. Naturally, sugar consumption in North and Central America will also increase in future, but more normally. It is interesting to state that 1948-49 sugar consumption is 1,767,000 metric tons, raw value, or 25.9 per cent higher than in 1937/38. This means theoretically, a yearly increase of 2.35 per cent. Considering that percentage, sugar consumption of these countries would show an increase of about 1 million tons within a period of five years.

## South America.

In South America the sugar consumption figures of all countries show very large increases. That is a phenomenon which may be found in numerous tropical countries during the last decade. It is connected with the increasing improvement of the standard of living, the increase of population and home grown production, as well as the greater appreciation of that valuable foodstuff. Better publicity may have had good results too. What we have said above is not only true of such large countries as Argentina and Brazil but also of smaller countries such as Columbia, Venezuela, Ecuador, Bolivia and Uruguay. The total increase from 1937-38 to 1948-49 amounts to 1,021,000 metric tons, raw value, or 55.2 per cent. It can be learned from that, to what extent sugar consumption developed during the last decade. We believe that in the next five years sugar consumption of the South American countries will no longer be increased at such high percentages as previously. It seems however, probable that a further increase for that continent of about 600,000 tons can also be expected.

## Africa.

It is rather difficult to gain a clear idea of the wide areas of the African continent. This is especially true of the numerous and large, more or less undeveloped, colonial districts in Western and Central Africa. However, there can be no doubt, that in most of those areas sugar consumption has considerably increased. This is especially true of the Union of South Africa which has doubled her consumption since 1937-38. The only exception is the French North African colonies, in which sugar consumption suffered by the small production of the mother country and the scarcity of dollars. The 1948-49 sugar consumption is, inspite of the decrease in the French North African colonies, 476,608 tons or 51.2 per cent higher than 1937-38. The development of many African areas is progressing rapidly. Moreover, it can be expected that the French North African colonies will have a more normal consumption during the next years. Therefore, it seems probable that the sugar consumption of the African continent will make good progress within the next few years. We assume that the consumption will be increased by 450,000 tons within the next five years.

## Asia.

The estimate of sugar consumption of the Asiatic countries is rather difficult. As to India, one must decide whether the large "Gur" consumption should be considered or not. As the "Gur" production has been considered in the estimates of world sugar production, it may also be done in the estimate of world sugar consumption, of course only at half of its total weight in raw sugar value.

First of all it has to be stated that, in contrast to the other continents (with the exception of Europe), Asiatic sugar consumption has not yet reached its pre-war level. The development is, however, rather different in the various countries. India shows no great differences. The consumption of Java, China, Formosa has nearly reached the same level as in pre-war times, while the consumption of the Philippines, Iran and the other countries is higher. The unfavourable part of these statistics is caused by Japan whose 1948-49 consumption is preliminarily estimated at 350,000 tons only, against 1,145,630 tons in 1937-38. It may be that this consumption figure will yet be increased. However, 1948-49 sugar consumption will, in every case, be considerably lower than in 1937-38.

What will future developments be? At present there are no signs that Indian sugar consumption will make great progress in the near future. The situation is changing even now and much will depend on the height of sugar price in the future. If there are high domestic sugar prices, with the aim of supporting sugar exports, consumption will decrease. On the other hand low prices would certainly promote sugar consumption.

The sugar consumption of Java, the Philippines and the other countries will make good progress in the future. The situation of Japan is the most difficult. Japan lost Formosa, the main sugar source of the country. The home grown production is very small and foreign exchange is scarce. For the moment, Japanese sugar consumption has been met by the U. S. Army on a low level. If Java or Taiwan would become larger exporters, the sugar requirements of Japan could be met by imports from these areas. However, will Japan have the necessary foreign exchange at hand for those imports? For the time being that seems rather improbable, therefore the sugar scarcity of Japan will last for some years.

Taking into consideration these facts, a forecast of the future development of consumption is largely guess-work. It is logical to assume that Asiatic consumption will reach the pre-war level again by an increase of about 600,000 tons within the next five years.

In Oceania the 1948-49 sugar consumption of Australia is 546,336 tons or 40.2 per cent higher than in 1937-38. Australia is a growing country, consequently sugar consumption will show an increasing tendency in future. It is expected that the sugar consumption of that continent may reach 800,000 metric tons within the next five years.

## **TARIFFS OF SUGAR IN DIFFERENT COUNTRIES**

Information on matters relating to duties and taxes on sugar in some of the important sugar producing countries of the world, has been given in the form of replies to the questions mentioned below :—

### **I. Fiscal and Other Barriers to Trade.**

1. Details of any import quota system or embargoes on import.
2. Details of duties and taxes on each class of sugar, raw and refined, giving polarisation where specified in fiscal provisions. (Separate details of preferential rates required) :—
  - (a) Import duties.
  - (b) Export duties.
  - (c) Excise duties.
  - (d) Consumption tax.
  - (e) Particulars of any other taxes on sugar (e.g. taxes for special purposes, such as research or welfare, etc.; charge for import licences; turnover tax, etc.)

### **II. Government Assistance to Domestic Sugar Production.**

1. What financial measures, if any, does the Government use to support or promote domestic sugar production and/ or export?

Particulars under the following heads are given in the foregoing paragraphs :

- (a) Direct subsidies or bonuses on the production of sugar, sugar beet or sugar cane.
- (b) Direct bonuses on the export of sugar.
- (c) Total or partial exemptions from taxations.
- (d) Differential rates of duty on raw sugar compared with refined sugar, by which the refiner benefits to the extent of the preference accorded to raw sugar.
- (e) A scale of duty based upon an assumed ratio of extraction of refined sugar, enabling all sugars extracted above that ratio to escape taxation.
- (f) A drawback on export greater than the actual duty paid.
- (g) Any other forms of assistance, such as favourable freight rates, etc.

## **BELGIUM.**

### **1. Fiscal And Other Barriers To Trade.**

#### **1. Import quota system or embargoes to imports**

Import licences are necessary in order to import sugar into Belgium and export licences are required before sugar can be exported from Belgium.

## 2. Duties and Taxes.

(a) Customs Duties on Foreign sugar		per 100 kilos, pounds net.
Raw and refined sugar		60 frs.
Molasses from the refining of sugar		60 frs.
Invert sugar and artificial honey		60 frs.
Syrups and caramelised sugar		60 frs.
(b) Excise duty on home produced sugar		
Raw or refined sugar		60 frs.
Molasses from the refining of sugar		30 frs.
Invert sugar and artificial honey		60 frs.
Syrups and caramelised sugar		60 frs.

N.B. There is no special protection for home-produced sugar other than for home-produced molasses (30 frs.)

- (c) Consumption tax.  
A forfeiture tax of 9% applies to all sugars put into consumption.
- (d) Other Taxes.
- There is a transmission tax of 4.50% which applies to all sugar worked through the refineries or candied.
  - An invoice tax of 4.50% applies to all transmissions of sugar which do not come under the transmission Tax of 4.50%

## CUBA.

### 1. Fiscal And Other Barriers To Trade.

- The import of sugar into Cuba is not subject to any system of quotas, licences or embargoes, whatsoever.
- (a) The import duties (Customs duties) on sugar in Cuba are at present as follows :-

Description	Unit	Maximum Tariff	General Tariff	Differential	Tariff for the U.S.A.
		\$	\$	%	\$
294 A Raw Sugar, Gross weight	100 Kgs.	2.00	1.00	20	0.80
294 B Refined Sugar, Gross weight	100 Kgs.	1.875	0.9375	20	0.75

In addition to customs duties proper, as set out above, imported sugar, both raw and refined, is liable to the law of Public Works Tax, amounting to 10 % additional charge on the duty, not 10 % of the value of the goods.

- (b) There are no export duties on sugar in Cuba,

### Government Assistance To Domestic Sugar Production.

- 1.(a) None.
- (b) None.
- (c) There is a draw-back of 95% of the customs duties charge on packing sacks, when said sacks are exported full of sugar.
- (d) (c), (f), and (g)—None.

### CZECHOSLOVAKIA.

#### 1. Fiscal And Other Barriers To Trade.

1. No import embargo or import quota system, apart from the duties.
2. Details of Duties and Taxes, etc. :
  - (a) The *import duty* on refined and raw sugar is since January 1, 1947 the same as it was before the occupation, i.e. per 100 kilos.....Kcs 338.—  
Until December 31st, 1946 sugar imports were free from duty. Beginning with July 1st, 1947, the duty will be increased to .....Kcs 600.—  
Moreover an excise duty and a turnover tax is being paid.
  - (c) The *Excise duty* was increased from Kcs 210—to Kcs 500.—on March 1st, 1946. In reality this new rate is valid since December 10th, 1945 when the home sugar price was increased from Kcs 645.—to Kcs 1.260—basis granulated. No excise duty is paid on export sugars or on sugars delivered to home manufactures or merchandise earmarked for export purposes, or on sugars destined for certain inland utilizations (manufacture of lactic acid, of skins, etc.)
  - (c) The *turnover tax*—3 per cent of the invoiced price, is paid since March 1946 on all sugars delivered to home firms, even if these deliveries are exempt from the excise duty.

### III. Government Assistance to Domestic Sugar Production

None

### FRANCE.

#### Fiscal And Other Barriers To Trade.

1. **Import Quota System or Embargoes on Import.**  
At present there are no fixed import or export duties. Sugar imports are integrated in the general plan established by the F.A.O.
2. **Duties and Taxes on each class of sugar, raw and refined, giving the polarisation where specified in fiscal provisions (separate details of preferential rates required.)**
  - (a) Import duties :.....(b) Export duties :—  
Customs duties have been suspended since the war. A new tariff is now being worked out.
  - (c) Excise duty.....None.
  - (d) Consumption tax.....None.

- (c) Particulars of any other taxes on sugar (e.g. tax for special purposes, such as research or welfare etc. charge for import licences; turnover tax, etc.)
- A. All products manufactured in France carry a production tax of 10% and a transaction tax of 1.01%. Sugar is also taxed. In addition there are special taxes on sugar as follows:—
- (a) a tax of 3 fr. 85 per quintal of sugar, in order to finance research and mechanisation of beet sugar production.
- (b) a tax of 9 fr. 50 per quintal of sugar, for the purpose of aiding districts where harvests fall below the average, owing to unfavourable weather condition.

A new tariff of import duties based on the Geneva Convention came into force on 1st January, 1948.

<u>Tariff No.</u>	<u>Product</u>	<u>Minimum rate of duty</u>
167 A	Beet sugar, cane sugar and { Raw sugar including veigeoiscs { beet cane other	130 P. 100 130 P. 100

## NETHERLANDS.

### Fiscal And Other Barriers To Trade.

#### 1. Import quota system or embargoes on import.

For the time being there are no import quota system or embargoes on import. All imports of sugar are being done by the Government on Government Account. It is difficult to do any prognostics about future development since this will depend on changes in international conditions and available currency. At the moment negotiations are afoot between the Belgian and Netherlands Government concerning a Belgo-Netherlandic customs union about which is known that for the union an import duty will be established of F. 15.13 per 100 Ko<sup>s</sup> netweight on refined.

Further particulars about this will be known after publishing by the Netherlandic Government.

#### 2. Details on duties and taxes.

##### (a) Import duties.

Since all imports of sugar are being done by the Government no import duty is in existence.

The duty of f. 2. 40 per 100 Ko<sup>s</sup> on refined in existence before 1940 therefore is suspended.

##### (b) Export duties.

No export duties are being laid. However, the price difference between the world-market price of refined sugar and the fixed price of sugar on the home-market, which difference at the moment is fixed at f. 25—per 100 Ko<sup>s</sup>, is being levied away for the benefit



on the exchequer thus bringing the price of sugar for exporters of sugar containing products (who receive restitution of excise duty), upto world-market level. Export of refined sugar itself is not allowed.

**(c) Excise duties.**

An excise duty of f. 29.25 per 100 Ko<sup>a</sup> refined is in existence. It is anticipated that this will be lowered when the Belgo-Netherlandic customs union comes into force.

**(d) Consumption tax.**

vide sub. e.

**(e) Other taxes.**

1. A turnover tax of 2% to be paid by the manufacturer (3% as from July 1st, 1947) ; a turnover tax to be paid by the wholesale dealer of 1/2% ; a turnover tax to be paid by the retailer of 2% (3% as from July 1st, 1947).
2. A general import duty on all goods of 2% ; (3% from July 1st).
3. Statistics-duty 10/00 ad valorem  
Consent-duty 10/00 ad valorem  
Charges for  
import licence 10/00 ad valorem

## **GOVERNMENT ASSISTANCE TO DOMESTIC SUGAR PRODUCTION.**

**In General :**

The assistance to domestic sugar production is based on a guaranteed price for the sugar beet to be paid by the sugar factory to the farmer, for the 1947 crop amounting to f. 34.—per 1,000 ko<sup>a</sup> beet. The Government guarantees the factories the paying of this price. This guarantee is worked out as follows : the fixed price for delivery by the factory of refined sugar for direct consumption amounts to f. 48.75 per 100 ko<sup>a</sup> and to f. 52.83 per 100 ko<sup>a</sup> for delivery to manufactories of sugar containing products. After deduction of excise duty and turnover tax they yield to the sugar factory a price which has no relation with the costing price of the beet and that of the refined sugar made from it. The difference between the price received and the production costs is paid to the sugar-industry on the basis of a fixed scheme. This system is keeping the price of sugar for consumers on a fixed level and guarantees a profitable price for farmers.

**Particulars :**

- (a) A direct subsidy to the sugar-factories enabling it to pay the guaranteed price to the farmers and therefore an indirect subsidy to the farmer. Sugarrefiners have a subsidiary indirect bonus from the manufacturing of soft sugar and syrup because of the fixed price calculation for these products in the above-mentioned scheme.
- (b) No bonuses on export.
- (c) No exemption for taxations.
- (d) Not valid vide No. 1.
- (e) Not in existence.
- (f) Not in existence.

- (g) None at present. It can be stated however that a change in international conditions and in particular measures taken by other countries might induce the Netherlandic Government to give assistance in some form or other.

## **PERU.**

### **Fiscal And Other Barriers To Trade.**

- (a) Peru is not an importer of sugar. In consequence there is no import duty on sugar. Imports of goods in general have, since February, 1945 been subject to a system of licences. The object of that system is, in actual fact, to devote the foreign exchange at the disposal of the country to those imports which are most badly needed.

- (b) The export taxes payable on Peruvian sugar are as follows :-

Law 10398—(Progressive and Cumulative). To enable you to see the scale of duties we enclose a copy of the text of the law and an explanatory schedule.

Law 7759-National Defence—\$ 0.02 per quintal = S/0. 16. 2  
(1\$ = S/6, 50)

Law 7103 - for the unemployed -1% ad valorem.

- (d) The taxes on internal consumption are as follows :

Law 5309 - White sugar	S 0,02 per kg.
„ „ Brown sugar	0,01 „ „
„ „ Chancaca	0,005 „ „

### **GOVERNMENT ASSISTANCE TO DOMESTIC SUGAR PRODUCTION.**

Peruvian sugar is not protected by the Government and in consequence receives no subsidy.

## **POLAND.**

### **I. Treasury and other restrictions for Trade.**

1. No import and export restrictions.
2. Duties and taxes.
  - (a) No import duty.
  - (b) No export duty.
  - (c) Excise zl.5 per 1 kilo.
  - (d) No consumption tax.
  - (e) No other special fees on sugar.

### **GOVERNMENT ASSISTANCE TO THE HOME SUGAR PRODUCTION.**

As yet the production of sugar in Poland does not avail itself of any assistance of the Government.

## **SOUTH AFRICA.**

### **1. Fiscal And Other Barriers to Trade :**

1. Details of any Import Quota System or Embargoes on,  
Nil.

**Import. Details on Duties and Taxes.****(a) Import Duties**

Act No. 35 of 1944, item 43.

Candy and Icing sugar 6/- per 100 lb. plus a suspended duty of 3/6 per 100 lb.

Loaf and Cube sugar-Minimum 9/- per 100 lb.

Intermediate 12/6d. per 100 lb.

Maximum 12/6 per 100 lb.

Other kinds of sugar 12/6 per 100 lb. plus suspended duty of 3/6d per 100 lb.

**(b) Export Duties.**

Nil.

**(c) Excise Duties.**

Nil

**(d) Consumption Tax.**

Nil.

**(e) Other Taxes.**

Nil.

**GOVERNMENT ASSISTANCE TO DOMESTIC SUGAR PRODUCTION.**

Nil

**Note** £200,000 special subsidy was given as compensation for drought losses.

**UNITED KINGDOM.****I. Fiscal And Other Barriers to Trade.**

1. The U.K. has no import quota system nor any embargoes on importation.

2. There are no export duties, no consumption taxes nor other taxes on sugar.

**GOVERNMENT ASSISTANCE TO DOMESTIC SUGAR PRODUCTION.**

(a) The beet sugar industry of the U.K. is supported by the Government by means of a deficiency payment to the British Sugar Corporation which is the only concern engaged in processing sugar beet in this country. During the last two years (1944-45 and 1945-46) the deficiency payments have amounted to £4,059,000 and £3,972,000 respectively.

(b) There are no direct bonuses on the export of sugar.

(c) There are no total or partial exemptions from taxation.

(d) For differential rates of duty on refined and raw sugar please see the schedule of import duties.

(e) No question of a scale of duty based on an assumed ratio of extraction of refined sugar arises.

(f) The drawback on exported sugar is not greater than the actual duty on sugar when it is paid.

(g) There are no other forms of assistance.

## WORLD SUGAR STOCKS

### F.A.O. Foresees Surplus

The Food and Agriculture organisation of the United Nations fears that the prospects of declining demand of sugar from some of the importing countries may become a reality in near future although at present stocks are not excessive and a balance between export supply and effective import demand may continue through 1950. But the expanded production for export in the Western Hemisphere may suggest the emergence of surpluses. Unless consumption is allowed to expand by removal of various restrictions, indications are that in the not too distant future there will be a larger than pre-war supply of "free" sugar available for sale in a smaller than pre-war "free market". Difficulties will be encountered first by the exporting countries which require payment in dollars. Remedial measures appropriate to the first phase might need substantial modification to cope with the situation. The world sugar stocks at the end of August 1948 were as given in Table No. 5. (Thousand of metric tons)

TABLE NO. 5

Countries	1938	1947	1948
Importings and Self Sufficient Countries	31st August	31st August	31st August
U.S.A.	1176	907	752
U.K.	384	664	415
Canada	115	118	82
Argentina	356	294	242
Belgium	65	39	33
Denmark	60	17	8
France	137	191	160
Germany	728	100	180
Netherlands	39	34	49
Sweden	171	90	100
Switzerland.	30	26	112
	3,261	2,480	2,133
Exporting Countries	1938	1947	1948
Australia	129	124	222
South Africa	72	98	127
British Colonies	60	174	140
Brazil	62	207	195
Cuba	1,606	1,987	1,839
Czechoslovakia	87	79	25
Dominican Republic	29	54	87
Haiti	7	8	8
Indonesia	692	752	500
Peru	15	63	51
Poland	101	37	36
Total Exporting Countries	2,860	3,593	3,230
Grand Total	6121,	3,126	5363

# WORLD SUGAR PRICE WHOLESALE

Year	London (per cent)	New York, per lb. Cents.
1934	s d 4 8½	1.47
1939	7 2½	1.97
1946	27 3	4.61
1947	21 7	5.15

## Retail Sugar Prices

### WORLD PRICE.....Wholesale and Retail....Countrywise.

Wholesale and Retail prices of refined granulated sugar in different countries of the world as on March 1949 are given below (in annas per lb.), in Table No. 6.

TABLE NO. 6

Country.	Retail price	Wholesale price	Internal Tax.	Per Capita Consumption in lb.
	As.	As.	As.	
Argentina.	2.51	2.40	---	71.9
Australia.	3.17	2.82	---	114.5
Belgium.	6.85	6.18	3.58	71.4
Brazil.	4.59	4.26	0.32	51.7
Canada.	4.81	3.91	---	102.9
Cuba.	4.23	3.97	0.79	82.1
Czechoslovakia	7.20	6.53	2.88	55.6
Egypt.	5.45	5.33	1.75	20.4
Greece.	11.75	8.40	---	27.2
France.	8.39	7.38	1.89	57.1
Germany.	1.65	7.64	2.88	63.3
Hawaii.	4.97	4.54	---	145.7
Holland.	6.76	5.95	0.61	89.4
Hungary.	12.26	11.30	5.29	28.2
Iran.	13.29	12.55	1.11	16.8
India.	6.50	n.a.	---	24.3
Italy.	11.27	10.43	3.85	21.3
Irish Free State.	3.70	n.a.	---	94.7
Japan.	11.55	10.97	4.62	29.1
New Zealand.	5.47	4.86	---	115.8
Mexico.	2.96	2.72	0.14	37.1
Norway.	3.01	1.94	0.18	77.4
Pakistan.	7.47	7.01	---	24.3
Poland.	10.50	9.90	0.50	29.8
Peru.	1.77	1.55	---	30.6
Philippines.	5.37	4.34	---	13.2
Finland.	9.70	7.57	1.57	67.7
Jamaica.	4.22	3.57	---	27.1
Denmark.	2.45	n.a.	n.a.	128.9
Portugal.	4.66	n.a.	---	22.1
Spain.	15.50	12.72	1.60	17.2
Switzerland.	5.97	5.24	0.12	85.1
Turkey.	14.78	13.71	8.28	14.9
Union of South Africa.	3.63	2.35	---	58.6
United Kingdom.	4.44	.00	1.55	112.6
U.S.A.	5.03	4.23	0.28	103.2

### Technical Efficiency of Sugar factories in Foreign Countries

The technical results of the working of the cane sugar factories in some of the important sugar producing countries of the world are given below in Table No. 7.

TABLE NO. 7

Technical Items	Indian Union	Hawaii	Mauritius	Natal	Queensland	British Guiana	Trinidad	Puerto Rico
	1947-48	1946-47	1946-47	1947-48	1946-47	1946-47	1947-48	1946-47
1. Cane Quality.								
(a) Sugar per cent cane.	12.32	12.59	13.56	13.32	14.91	11.43	12.11	13.09
(b) Fibre per cent cane.	15.89	14.76	12.58	15.80	11.83	14.39	15.20	13.89
(c) Primary juice purity.	83.43	86.50	88.00	88.48	84.71	82.53	83.07	84.00
2. Yield.								
(a) Yield of sugar % cane.	9.85	10.76	11.35	11.20	12.31	9.01	10.13	11.49
3. Milling Results:								
(a) Added water % fibre.	128.01	239.6	171.7	217.5	....	156.5	144.5	....
(b) Sugar % bagasse.	3.21	2.03	2.82	2.54	2.78	3.27	2.52	2.65
(d) Mill extraction.	91.23	96.38	94.90	93.44	95.31	91.63	93.47	94.07
(e) Lost juice % fibre.	46.42	20.93	35.70	34.93	35.49	49.77	36.40	....
(f) Reduced mill extraction.	93.37	97.01	94.90	95.01	94.93	92.8	94.80	94.75
Sugar Balance:								
Sugar in mixed juice=100								
(a) Commercial sugar.	87.46	88.69	88.20	89.61	86.63	86.60	89.53	90.56
(b) Press cake.	0.98	0.73	1.01	0.34	0.71	1.09	0.46	0.74
(c) Final molasses.	10.50	9.79	..	..	9.37	..	..	0.72
(d) Unknown losses	1.06	0.79	10.79	10.05	3.29	12.85	10.01	..
5. Boiling House Results.								
(a) Mixed juice purity.	80.80	83.67	85.20	86.24	..	..	81.53	..
(b) Clarified juice purity.	82.33	..	..	..	..	..	..	..
(c) Final molasses purity.	33.00	39.83	39.20	41.10	46.42	33.09	31.38	30.99
(d) Boiling house extraction.	87.46	88.69	88.20	89.61	86.83	86.06	89.53	90.56
(e) Reduced boiling house extraction.	90.69	89.77	88.00	88.51	..	89.81	92.12	..
6. Overall Results.								
(a) Overall extraction.	79.79	85.49	83.70	83.73	82.57	78.86	83.68	85.19
(b) Reduced overall extraction.	84.68	87.09	83.51	84.09	..	83.42	87.33	..

### INTERNATIONAL NEGOTIATIONS AND AGREEMENTS

#### (1) Cuban Sugar Purchase.

The United States, the United Kingdom and Cuba have reached an agreement under which the U.S. Army will buy some 4,00,000 long tons of Cuban sugar and, Britain 350,000 long tons. This has been announced in Washington on 13th May, 1949. The agreement provides that the first 100,000 long tons for the U.K. and 150,000 long tons for U.S.A. will be purchased at the rate of 4 cents per pound, and that the price of the remaining 500,000 long tons shall be determined, within the upper limit of 4 cents per pound, by the average monthly spot price for Cuban free world sugar in New York during July to November 1949.

#### (2) United Kingdom's undertaking to the Dominions and Colonies.

Because of her acute dollar shortage, the U.K. Government has given an undertaking to the Dominions and Colonies to buy all the sugar they can export during the next four years. Unless it becomes possible for dollar countries, to negotiate sugar contracts with Britain in sterling, U.K. will curtail her purchases from them and encourage Commonwealth trade to the limit. It is perhaps unfortunate, but it is, in existing financial conditions imperative. And although Cuba which is the leader in the desire for a 'new Agreement to be urgently exacted, has generously conceded that she will not expect any nation to become party to a new Agreement if by doing so its national economic interest would be adversely affected, it is the opinion of the U.K.

Government that in the existing stringency of dollar resources in many countries a fair basis for negotiating a new Agreement does not exist, but that every consideration will be given to any reasoned proposals which may relieve the apparent impasse.

### (3) **British West Indies Seeks Purchase Agreement.**

A deputation from the British West Indies Sugar Association visited the United Kingdom and negotiated to obtain a guarantee of at least ten years for the sugar production of the area at a price based on the present £27. 5Sh. per ton, with the addition of an escalator clause to be related to an index of U.K. import prices. This proposed new index would be calculated to reflect changes in the price level of the main item imported from the U.K. by the B.W.I. The deputation estimated that in the absence of such a guarantee, the level of B.W.I. Sugar production would remain stationary or actually decline, while if the guarantee was given an exportable surplus of over 1,000,000 tons per year is foreseen at the end of that period, against this year's estimated export of some 670,000 tons.

## **MEETINGS OF THE INTERNATIONAL SUGAR COUNCIL.**

### **First Meeting**

At the session of the International Sugar Council held in London on July 7, 1949, the representative of the attending governments approved the prolongation of the record signed on August 31st, 1948, for a new period of one year.

As the Sugar situation had rapidly changed for the better, it did not seem probable that Cuba would leave a large carry over at the end of this year after the heavy purchases by U.S. Army and the British Ministry of Food and Western Germany. Therefore, it seemed, not so urgent immediately to renew the International Sugar Agreement, which moreover most of the partners of the British Commonwealth did not wish to prolongate for the present.

If the Cuban proposals for a renewal of the International Sugar Agreement would be received it was to be examined in the autumn meeting, when the crop prospects in Europe will be more clear. Mr. P.H. Westermann was re-elected Chairman of the Council

### **Second Meeting (October 20, 1949)**

The International Sugar Council held a meeting on 20th October, 1949, at Brocton House, London. It was attended by representatives of seventeen Governments, by observers from seven other Governments, and by an observer for the Food and Agriculture Organisation.

One of the items on the Council's agenda was the Report of its Statistical Committee giving estimates of the world sugar position. The figures, all of which are given in metric tons, raw value, were as follows:—

The Estimate for the crop year ended 31st August, 1949 showed that estimated supplies for the free market were 4,344,000 to meet estimated requirements of 4,041,000. The figures for the crop year ending 31st August, 1950, showed that estimated supplies for the free market were 4,389,000 to meet estimated requirements of 4,050,000.

Detailed figures for each of the years mentioned above will be available in a few days as a Supplement to the Statistical Bulletin of the International Sugar Council.

The other main item on the agenda was a Report from the Special Committee which the Council set up on 24th August, 1948, to

- (1) study the changing sugar situation as it relates to the need or desirability for negotiating a new Agreement; and
- (2) to report to the Council, as occasion arises, its findings and recommendations as to the possible bases for a new Agreement in the future.

The Special Committee, at meetings held on 17th, 18th, and 19th October, had considered the Estimates prepared by the Statistical Committee and Draft Bases for a new International Sugar Agreement prepared by the Cuban Delegation.

The Special Committee considered that it was obvious that there was not at the present moment any serious world surplus of sugar and that it was improbable that any burden-some surplus would develop in the crop year ending 31st August, 1950. They felt, however, that there were elements which might tend to produce such surpluses in the future and that proper international instrument should be ready before any emergency occurs.

They therefore recommended the Council to agree that the Committee should continue its investigations with the object of making recommendations on possible bases for a new International Sugar Agreement, taking into consideration the Draft Bases for such an Agreement prepared by the Cuban Delegation, any other proposals that might be formulated, and the views of the various governments on the Cuban Draft Bases and other proposals. They rather recommended that they should be asked to submit a report to the Council, including recommendations on the bases for a new International Agreement, in sufficient time to enable another meeting of the Council to be held, not later than July 1950, to consider the report.

The International Sugar Council adopted the recommendations of its Special Committee.

.....

### **Session of the International Commission for the Unification of Methods of Sugar Analysis.**

The opening meeting of the 10th Session of the International Commission was held in Brussels on August 29th, 1949. Specialist from all parts of the world representatives of scientific institutions and sugar industry met with a view to promoting the study of methods of analysis referring to the Sugar industry. The exchange of informations was freely made.

### **International Office of Sugar Beet Growers**

The Italian, French and Belgian beet growers have founded a preliminary International office of Sugar Beet Growers in 1947 in order to keep the interests of the European sugar beet cultivation. On July 9th, 1949 a session of that office was summoned in order to deliberate about all questions connected with the European Sugar beet cultivation. The beet growers of Switzerland and Spain were invited too. The former could not participate in the session. This was the first meeting of European Sugar beet growers on a larger scale after World War II. It has been decided to invite all those countries which were members of the office before World War II. It was hoped that the next meeting of the foundation can be held before the year 1949 ends.



## CHAPTER II

### UNITED STATES OF AMERICA

#### The 1949 sugar situation of the U.S.A.

The United States and Cuba are the most import sugar districts of the world. The development of the sugar situation in these countries is of considerable influence all over the world, even in European countries. Therefore all circles connected with the world sugar economy should watch events in those important markets.

The sugar economy of the U.S.A. is based on the Sugar Act of 1948, which regulates this part of the economic life of the country. One of the main points of this Act is the fixing of quotas for the sugar producing areas which are supplying the United States sugar market. With the announcement of the 1949 quotas, the market situation can be examined from a statistical point of view. The 1948-49 production of all supplying areas of the United States market are, in comparison with the last two years as follows:—

	1948/49	1947/48 (Short tons, raw value)	1946/47
Domestic Beet Sugar	1,392,000	1,832,012	1,523,010
Mainland Cane Sugar	458,000	376,002	425,003
Hawaii	985,000	860,006	872,005
Puerto Rico	1,240,000	1,108,008	1,088,008
Virgin Islands	5,600	6,150	5,600
Philippines	722,000	399,817	84,453
Cuba	6,063,000	6,675,044	6,448,043
Total	10,865,600	11,257,039	10,446,122

Thus production will probably be about 400,000 short tons below that of last year. However this will have no influence on the sugar supply situation of the United States because of the control over supplies existing under the Sugar Act of 1948.

The Secretary of Agriculture has announced that the amount of sugar required to cover the consumption needs of the United States during 1949 was fixed at 7,250,000 short tons, raw value. Last year the initial quota was 7,800,000 short tons and the final was declared in respect to Philippines, and reallocated to Cuba and other quota 7,200,000 short tons. On 29th December, 1948 a deficit of 125,000 short tons was declared in the other foreign countries. The present quota, compared with the final quota of 1948 is as follows. It may also be compared with the estimated sugar production in 1948/49 and 1947/48 already given above.

Source	1949 quota	Final 1948 quota (Short tons)
Domestic Beet	1,800,000	1,687,738
Domestic Cane	500,000	413,260
Hawaii	1,052,000	825,000
Puerto Rico	910,000	1,023,756
Cuba	2,091,550	2,940,467
Philippines	857,000	240,000
Virgin Islands	6,000	6,159
Full duty Countries	33,450	63,620
Total	7,250,000	7,200,000

### Estimate of Supplies.

It is generally expected that domestic beet and cane sugar deliveries may fall short of the present quota by 200,000 tons. Hawaiian production probably will be not quite sufficient to meet the 1949 quota while Puerto Rico's production will exceed the quota. As to the Philippines, their quota will not arrive in time to charge fully against the 1949 quota.

### Readjustment made in 1949 Quota.

The Department of Agriculture has decided on August 29, 1949 the reallocation from the Hawaiian quota of 200,000 short tons, which these islands will not be able to deliver, as follows.

Puerto Rico	...	..	48696	Short tons.
Cuba	...	..	126,220	"
Cane	..	..	25084	"

A further readjustment took place on September 13, 1949 when the Secretary of Agriculture announced an increase of 250,000 short tons in the overall sugar quota for the U. S. Of this Cuba gets 98.64 per cent and the full duty countries receive 1.36 percent. The re-adjusted quotas are as follows :—

Domestic Beet	1,600,000	Short tons
Mainland Cane	525,084	" "
Hawaii	852,000	" "
Puerto Rico	1,019,331	" "
Virgin Islands	6,000	" "
Philippines	557,000	" "
Cuba	2,888,735	" "
Foreign suppliers	51,850	" "
	7,500,000	Short tons

According to the estimates published, a production of Beet sugar of 1,460,000 short tons, cane sugar of 565,000 short tons is to be expected from this year's crop.

### Domestic Sugar Beet Crop Outlook for 1949.

The outlook for the 1949 domestic sugar beet crop according to the Crop Reporting Board of the U.S. Department of Agriculture based on the condition the crop on October 1, 1949 was estimated at 9,882,000 tons compared with the last year's crop of 9,422,000 tons and the 10-year average production of 10,145,000 tons. Yield per acre this year is expected to average 13.8 tons, compared with 13.6 tons last year and the 10-year average of 12.7 tons acre.

### Mainland Sugarcane Crop Outlook for 1949.

On the basis of October 1, 1949 prospects, the continental sugarcane crop to be harvested for sugar and seed is estimated at 7,920,000 tons. Last year's (1948) crop totalled 6,847,000 tons and the 10-year average production was 5,952,000 tons.

	1948	1949
Yield per acre	20.5	22.9
Production (1000 Tons)	6,847	7,920

### Mechanisation :—

The mechanisation of operations connected with the growing and harvesting of sugar beet is being pursued in a number of countries with varying degree of success. Naturally enough, the U.S.A. have achieved the greatest progress

along the line and nearly all the beet grown there is harvested mechanically. The reasons are small density of population, and shortage of seasonal labour, huge extension of beet fields and climatic conditions. One of the chief difficulties with mechanical harvesting of sugar beet is ever changing condition of the soil, but this difficulty has been overcome where beet is grown under irrigation which can be regulated as required. In Europe, however, the grower, has not been able to regulate the condition of soil but nevertheless no efforts are being spared.

U.S Beet Sugar Production consumption, and Sugar stock position on January 1, for the years 1941 to 1948 are given below in Table No. 8.

Year Jan.-Dec.	Beet Sugar Production	Cane Sugar	Consumption*	Consumption per head (lbs)	Stock on January 1.
1941	1,669,491	420,428	8,069,457	111.3	2,356,256
1942	1,677,354	473,446	5,466,204	79.4	2,148,636
1943	1,071,504	459,841	6,334,713	87.3	2,137,416
1944	1,065,551	446,603	7,147,350	92.3	1,766,336
1945	1,215,184	451,389	6,040,569	n.a.	1,227,090
1946	1,451,364	448,730	5,620,708	74.5	1,418,077
1947	1,813,542	344,704	7,447,836	96.5	1,451,847
1948	1,464,774	452,345	7,342,923	89.8	1,938,504
1949	..	..	6,504,346**	..	1,497,945

(\*) Includes Sugars for U.S. military forces.

(\*\*) Upto October '49

(Short tons-raw value)

### U.S. 1948 Consumptions Drop—Reasons.

The consumption of sugar in the United States in the year 1948 as compiled by M/s. Willet & Gray, shows a decline from the 1947 figures. Per capita consumption in 1948 was 89.8 lbs. against 96.5 lbs. in 1947. Pre-war per capita consumption was 96.2 lbs. in 1939, 96.6 lbs in 1940, whereas the figure of 111.32 lbs. in 1941 was influenced by the entry of U. S. into war. The decline in 1948 may be attributed to various causes, not the least of which is the fact that the consumption of sugar in the U. S. is getting back to a normal basis. In the the previous year, following decontrol, consumption showed an excessive increase due to the fact that invisible stocks were again being built up following the ration period

In 1948 there was no great incentive to purchase beyond normal requirements and this fact along with the rather high price of refined sugar at retail throughout the country, as well as the use of substitutes with which some consumers had become familiar during the war, brought about a decline from the 1947 figure. The 1948 consumption amounted to 5,933,577 long tons of refined sugar, against 6,261,652 tons in 1947 and 4,711,209 tons in 1946. The decrease in the year 1948 amounted to 5.2 per cent.

Of the total consumption of 5,933,577 tons, cane sugar refiners supplied 3,962,374 tons (66.8 per cent) and the rest was direct consumption.

### Sugar Price :—

	1949*	1948	(Cents Per pound) 1947
	7.96	7.76	8.29
Refined Sugar, Gross including Excise Tax(**)	—	5.56	6.22
Duty Paid Raws	5.3	5.06	5.45
Ex-Duty Raws			

(\*) upto October 1949 only.

(\*\*) Excise tax is 53½ cents per 100 lbs.

The average retail price was 9.4 cents per pound as compared with 9.7 cents in 1947

**World Price and U.S. Price compared:—**

U.S. Price (F.O.B. Cuba)	4.636
World Price (F.O.B. Cuba)	4.221
	(Cents per pound)

**U. S. Relief Shipments.—**

Approximately 1,151,067 short tons various sugars were shipped during 1948, in connection with civilian feeding in occupied areas under the U. S. Foreign Aid and the European recovery programme. Details are as under (Table No. 9.)

**TABLE NO. 9.**

U.S. Relief Shipments 1949

Short tons	Cuban Raws	Peruvian Raws	Japan Direct Consumption	Total
U.S. Army Germany	509,199	—	—	509,190
U.S. Army Japan	410,756	28,951	16,768	456,475
U.S. Army Korea	31,106	9,860	—	40,966
U.S. Foreign Aid Italy	60,852	—	—	60,852
U.S. Foreign Aid Austria	29,309	—	—	29,309
E R P Austria	54,275	—	—	54,275
Totals	1,095,488	38,811	16,768	1,151,067

1949\*

1948

Owing to hurricane damage, the 1948 purchase of Cuban sugar, formerly stated as 1,238,000 short tons has been reduced by 11,000 tons to 1,227,000 short tons. Approximately 131,500 short tons of the Cuban purchase remain unshipped on 31st December, 1948.

**U. S. Sugar Tariff.**—There is no duty on Hawaiian, Puerto Rican, Philippine and virgin islands sugars. These are admitted free of duty. For others duties are as follows from January 1, 1948.

(Cents per pound)

	Full Duty	Cuban Duty
Refined	.72875	.53
Raw (96°)	.6875	.50

**Tariff Reductions.**—Major tariff reductions were announced by the U.S. A. on October 10, 1949 as result of the Annecy (France) Conference at which 31 nations participated. Under the most favoured-nation principle of the Geneva Agreement, any

freezing or reduction of tariff agreed to automatically applies to other countries within the agreement. It is expected that in U. S. A. the new rates will go into effect gradually during the first half of 1950, depending on when each country signs the agreement. The present rates on raw and refined are "bound" or frozen by the Agency conference.

### U. S. Domestic Sales of corn sweeteners.

	1949	1948	1947
Refined Corn Sugar	247,979	309,763	326,579
Corn Syrup unmixed	488,047	647,260	969,608

### Statistical Summary

	*Upto September only.	(Short tons-raw value.)
	1948	1947
Initial Stock 1. 1.	1,935,971	1,451,817
Production Beet	1,464,774	1,813,542
Cane	452,345	344,704
Imports	3,053,793*	4,031,705*
Total Supplies	8,906,883	9,641,798
Export	76,646	232,254
Consumption	7,347,086	7,447,834
Final Stocks	1,492,721	1,938,504
31.12.		

\*Raw and Refined both.

### (B.) PUERTO RICO

Puerto Rico is the first country where after 1948-49's heavy crop, "largest in the history" restrictive measures are imposed on cane growing. The total Sugar production in 1948-49 reached 1,277,491 short tons. The Sugar Industry is worried about the surplus of about 200,000 short tons. The production during the previous two years was as follows.

	1947-48	Short tons 1946-47
Cane crushed	9,541,232	9,286,282
Sugar	1,108,260	1,087,881
Recovery% Cane	11.62	11.72

**Surplus** :—The surplus of 200,000 tons affects sugar growers in so far as it may possibly mean a lower crop next year, as they claim that owing to increased wages etc. they are producing at a loss even now. It is understood that the U. S. Government will be approached with the request that this surplus may be considered in the purchases of sugar for Europe. This production of 1,277,491 short tons, after deduction of sugar needed for Home consumption amply suffices to fulfil the present quota of 970,000 tons, last year's deliveries against the U. S. quota having been 1,013,175 tons.

Faced with inability to dispose of a sugar surplus of 96,255 tons without allocation for sale in the world market, Puerto Rican sugar producers are worried lest part of this surplus be eventually carried over and charged against the 1950 sugar crop. Up to the present, efforts made by the E. C. A. to sell part of the surplus have failed owing to the recent termination of the Hawaii longshoremen's strike, and the excess of sugar production in other sugar producing areas. Cuba is also having large sugar surpluses and as such Puerto Rican sugar industry is facing a crisis.

**Restrictions Imposed:**—Restrictive measures are to be imposed on cane growing. Proportionate quotas are to be established for each farm on different scale for the growers, (i) experienced growers (ii) small growers and (iii) new growers. A formula has been evolved. This formula gives equal weight to "past production" and "ability to produce". "Past production" is measured by the average production of preceding three years as a base period and "ability to produce" by the highest production from any one of the crops in the base period.

The small farmers have a minimum delivery guaranteed equal to 10 short tons of sugar. The "new farms" will have the right to deliver the minimum i.e. 10 short tons in value of sugar if the producer resides on the farm and receives a major share of income from the farm. Otherwise proportionate shares for new farms will be established on the basis of 50 per cent or 25 per cent of the appraised production, if the sugar cane was planted prior to or subsequent to this Decree.

### (C) HAWAII

#### Production.

Hawaii is expected to produce some 950,000 shorts during 1949, the present quota being 10,52,000 tons.

TABLE NO. 10

Year	Acreage Acres	Cane Crushed	Sugar Made	Recovery	Yield per acre
1941	130,768	8,559,800	947,190	10.34	65.5
1942	114,745	7,918,300	870,099	10.27	69.0
1943	113,754	8,185,400	885,640	10.82	72.0
1944	109,522	7,832,200	874,947	11.17	71.5
1945	103,174	7,371,200	821,216	11.14	71.4
1946	84,379	6,002,100	680,073	11.33	71.1
1947	113,020	7,942,200	872,187	10.28	70.3
1948	100,042	7,542,600	835,107	10.35	75.4
1949	—	—	950,000 (Est.)	—	—

#### Hawaiian Strike Settled.

A wage increase of 14 cents an hour demanded by the strikers has been accepted by the Fact Finding Board set up by the Government and agreed to by the Employers.

#### Progress in Hawaii

Progress has been made in two different directions. The first concerns the new bulk storing and loading plant for raw sugar and the second concerns a "Sky hook" or power driven aerial transport unit. 400 tons of cane are being delivered to the trucks in 16 hours. This transport is to be used only where trucks could not be used due to rough and wet land.

**(D) LOUISIANA****TABLE NO. 11.**

Year	Acreage (1000 acres)	(Cane 1000 tons)	Sugar	Yield of cane per acre
1939-40	236	5,069	434	21.5
1944-45	246	4,920	369	20.0
1945-46	239	5,234	376	21.9
1946-47	255	4,488	331	17.6
1947-48	258	3,922	297	15.2
1948-49	270	5,265	397	19.5

**(E) DOMINICAN REPUBLIC**

Dominican Republic celebrated 450th anniversary of establishment of cane sugar industry in August 1949. Sugar production in the republic approximates half a million short tons, annually and it consists the backbone of the Dominican economy. The industry employs more than 40,000 persons and a Capital investment totals 100 lac dollars.

Although the production of sugar is more than 400,000 short tons per annum, the internal consumption is only about one-tenth of this *i. e.*, 40,000 tons. the rest is exported mostly to United Kingdom. The closing stock at the end of each year is approximately one lac tons.

On October 27th, 1949, Great Britain purchased 500,000 tons of raws from Dominican Republic. The price was set at 4c l. o. b. on 150,000 tons of this, while the price on the balance will be fixed later, possibly on a price day—of arrival—basis.

## CHAPTER III

### CUBA

Cuba continued to be the dominating influence in the world sugar production and held the centre of the stage controlling the trend of the market.

#### Production.

The number of mills grinding, the date of start and close of the season and production of sugar during the last 3 years are given below in Table No. 12.

TABLE NO. 12.

Year	No. of miles	Date of start	Date of close	Production (short tons-raw)
1947	161	18-12-46	5-9-47	6,448,327
1948	161	18-12-47	23-8-48	6,674,951
1949	161	11-12-48	24-6-49	5,763,121

The crop for the year 1949 was previously estimated at 5,000,000 Spanish tons, because of dry weather the hurricanes last Autumn, and the late start of grinding owing to the dispute between Mill-owners and Colonos. The latter was however settled towards the end of January 1949 and the mills opened their campaign. By March 25, all of the mills (161) had started. The grinding of the 1949 crop was completed on June 24, 1949.

#### Agreement on Cane Price.

Under the agreement, the planters will be paid on the basis of 48 per cent of the yield obtained by the Mills from cane. In addition a Compensation Fund is to be set up whereby planters receiving in sugar less than 6 per cent of weight of cane, delivered may be compensated in cash for the difference.

#### Exports.

The export figures for the last 8 years are given below in Table No. 13.

TABLE NO. 13.

	Spanish long tons, raw value
1941	3,196,390
1942	1,725,047
1943	3,671,373
1944	3,671,373
1945	3,590,633
1946	3,613,480
1947	5,418,717
1948	5,741,278



### Cuban Supply Quotas. Cuban Presidential decree.

The President of Cuba had signed a Decree making the following allocations from the 1949 sugar crop which was estimated at 5,000,000 tons.

Quotas	Spanish tons
U. S. A. Free	1,700,000
U. S. Retained	1,200,000
Free World Market	800,000
Local Consumption	209,000
Special Quota	1,100,000

Free exportation of the United States quota was authorised. Any necessary increases or reductions in quotas was to be made by corresponding alterations in the special quota. The world quota was to be reduced each time the world spot price falls below 4 cents a pound and remains below for five consecutive days. This has been the subject of protest from the industry and it was thought that this provision will be eliminated and that the world quota will instead be reduced to 600,000 tons.

### World Free Quota Reduced.

Following representation by the industry, the scheme providing for automatic reduction of the world quota was abandoned and instead a Decree reducing the world market quota from 800,000 to 600,000 Spanish tons was signed on 3rd March 1949. The 200,000 tons was added to the special reserve. The market assumed a firm tone and a limited volume of business was transacted at prices upto 4.25 c. (f. o. b) Cuba, sellers then increasing their quotations to 4.30c. The big prospective buyers, however maintained a reserved attitude, particularly the British Ministry of Food.

### Cuban Block Sales; Surplus Cleared.

On 13th May 1949 it was announced that agreement has been reached between the U. S., the U. K. and Cuba under which the U. S. Army will buy some 400,000 tons of Cuban sugar and Britain about 350,000 tons. Britain will pay 4 cents per lb. for the first 100,000 tons and the U. S. the same price for 150,000 tons. The price of the remainder will be within the upper limit of 4 cents and a minimum of the average monthly spot price of Cuban "free world" sugar in New York during July—November inclusive.

In consideration of the fact that the quota of 600,000 Spanish tons originally established by the Cuban Government for world market has been sold, the world quota was increased by 250,000 Spanish tons to 850,000 tons. The 750,000 tons purchase will reduce the special reserve from 1,300,000 tons to 550,000 tons and the additional 250,000 tons increased for world free quota will further reduce the reserve to 300,000 tons.

The revised position would work out like this :—

Production 1949		5,000,000
Local Consumption	200,000	
U.S. Quota	2,630,000	
U.S.—CCC Sale	400,000	
World Quota	850,000	
Sale to U.K.	350,000	
		4,430,000
		570,000

Later on the Cuban Institute obtained Presidential approval to dispose of the balance remaining in the special quota to non-U. S. destinations. Following the failure of the Philippine, the deficit of 300,000 short tons was to be obtained from Cuba and hence U. S. Department of Agriculture allocated 250,920 Spanish tons from the U. S. Retained quota and transferred to the U. S. free quota. Additional outlets in the United States have been provided for Cuba by share of Hawaiian quota deficit.

The current crop was allotted approximately as under in English tons.

U.S.A. Free	..	..	..	..	2,615,000
U.S.A. Retained	..	..	..	..	215,000
World Free	..	..	..	..	1,030,000
Sale to U.K. and CCC.	..	..	..	..	810,000
Sale of balance of World Reserve	..	..	..	..	270,000
Local Consumption	..	..	..	..	206,000
Total 1949 crop	..	..	..	..	5,146,000

This shows that Cuba will go into the New year with a very much lower carry-over than as anticipated some months ago. This was important from the standpoint of both the world market situation and that of the U. S. In case of latter, it was commonly felt that whenever Cuba has in reserve a large quantity of sugar over and above for participation in U. S. Quota such sugars have a depressing effect on the U. S. Market. The block sales to U. K. and others greatly relieved Cuba's financial and storage position.

### Sugar Price.

The sale was affected at 4.0 cents per lb. with the British Ministry of Food.

Other European countries brought at 4.15, 4.20 and 4.25 cents per lb. A large volume of Cuban refined was sold at 5.30 and 5.40 cents.

### Relations between Cuba and the U. S. A.

An insistent rumour circulated in the U. S. to the effect that U. S. was contemplating a policy unfavourable to Cuba, even to the point of replacing the present quota system is worrying the Cuban sugar industry. The trade relations between Cuba and the U. S. show permanent balance in favour of the former and hence it was thought that U. S. may purchase sugar from Brazil, Peru, Haiti etc. at lower rate.

### Statistical Summary.

	1949 (Upto 15-9-49) (Spanish long tons)	1948 (Full year)
Stocks at the beginning	N.G.	347,601
Production	5,073,968	5,876,761
		6,224,362
Less		
Local Sales	132,623	157,195
Exports	3575,545	5,741,278
Closing Stock	1,365,800 (September 15)	325,889 (December 31)

## CHAPTER IV

### CANADA.

#### Production, Trade consumption and Stocks.

Table No. 14.

Year	Productions	Import	Exports	Metric tons raw value	
				Consumption	Stocks
					(31st Dec.)
1940	107,652	487,533	221	565,537	204,326
1946	99,139	398,710	952	475,264	153,405
1947	—	452,816	1025	510,749	133,377
1948	—	555,327	479	579,536	162,802
Sept-August					
1946-47	103,704	415,717	1048	513,588	118,373
1947-48	78,768	530,100	509	682,944	81,757
1948-49(*)	88,632	369,203	662	408,253	154,673

(\*) Sept/April only.

It is reported that one of the Beet Sugar factory recently decided to produce white sugar from raw cane sugar during the off season. The Canadian Sugar Stabilisation Corporation Ltd. will have to give permission before this is done.

#### Canada Lifts Price Control:—

The wholesale and retail price ceilings were lifted on sugar and molasses as from 23rd March, 1949. The Act enabling the continuation of the other sugar controls which prohibit the importation of sugar except through the Canadian Sugar Stabilisation Corporation Ltd. and fix the refiner's margin, has been extended to 31st March, 1950.

#### Increase in Sugar Price:—

The price of refined sugar increased during 1947. Beet Sugar increased from 6.81 to 8.45 cents and cane sugar from 5.95 to 6.92 cents. The value of sugar of all kind rose from 6.14 to 7.14 cents per pound. During 1948-49 the prices rose to 9.35 dollars per cwt. F.O.B.

#### The Sugar Refining Industry:—

There are eleven refineries in Canada and the capital invested was 44,144,876 dollars in 1943. During 1947 it employed about 3,000 workers to whom 6.3. million dollars were paid as salaries and wages. The gross value of production was 80 million dollars in 1947 and 61 million dollars in 1946.

#### Yield & Prices:—

The yield of beet per acre varies from 10 to 11 tons and the average price per ton during 1944, 1946 and 1947 was 10.01, 10.91 and 14.06 dollars at the factory. The price of refined sugar during these years was 6.84, 6.81 and 8.45 dollars per cwt. at the refinery. The prices of raw cane sugar at the factory was 5.18 dollars per cwt. in 1947.

**Retail Price.**

Year	1949	1948	1947	1942-46	1939	
Price in cents per pound	9.8	9.7	9.3	8.6	6.6	

**Cost of Production :—**

The Raw materials, consisting of raw cane and sugar beets, constitute almost 93 per cent of the total cost, other materials about 2 per cent, and containers of all kinds over 5 per cent. Although no actual data are available, it is probable that sugar beet production in Canada is carried on at relatively low costs compared with other beet producing countries. It is well known that sugar can be produced from cane in tropical countries more economically than from beets in temperate countries.

Costs of production have increased greatly in recent years and in a brief presented to the Dominion Government by Sugar Beet Growers in 1945, the costs were stated to be as follows.

1940	..	..	..	..	..	..	55 dollars per acre.
1944	..	..	..	..	..	..	82 dollars per acre.

**Capacity :—**

When the factories operating at full capacity, the campaign lasts for about 100 days each year. Thus factories having 1200 tons daily slicing capacity, operating for 100 days should handle about 120,000 tons of beets or the production from 120,000 acres yielding 10 tons per acre. For several years none of the factories except in Alberta have been working at full capacity as the acreage and production of beets has been insufficient for this purpose. In 1949 a further increase in sugar beet acreage has been announced in practically all provinces.

**Price of beet and Sugar.**

Year.	Beet	Sugar
	Av. Price per ton	Av. price per cwt.
1943	9.68	6.75
1944	9.91	6.82
1945	10.01	6.84
1946	10.91	6.81
1947	14.06	8.45

**Canadian Maple Industry.**

- (1) Average number of trees one person can tap per day is 400
- (2) Average yield of sap per tree is 5 to 6 gallons of Maple Sugar

**Production and Price of Maple Sugar.**

Year	Production 1000 lb.	Farm Price (Cents per lb.)
1947	3,434	73.4
1948	2350	34.9

## MEXICO.

### Rapid Progress :—

Sugar production in Mexico has increased to such an extent in the past two years that, by conservative estimate, imports of sugar valued at more than 3.75 million in 1946 has become exports worth over £ 3 million annually. This transformation of the industry was brought about by heavy investments in new plantations and mills. Sugar is now a factor of first rank importance in the economy of the country.

The export picture is a little complicated by the fall in world sugar prices and by production costs, which are rising so rapidly that producers state that they will lose nearly \$ 10 a ton on sales abroad.

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Production	{	1946-47—500,000 tons
		1947-48—610,000 tons
		1948-49—660,000 tons (Estimated)

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### Exports.

During 1948, sales abroad of refined sugar amounted to 154,384 tons of which Great Britain alone brought 99,232 tons. In addition 16,420 tons of molasses were shipped to the U.S.

### Consumption.

Domestic Sugar consumption increased from 436,000 tons in 1947 to 501,995 tons in 1948. It will probably exceed 520,000 tons during 1949 and is expected to increase gradually for several years.

### Prices.

Prices ranged from 4.075 dollars per 100 lbs. for semi-refined sugar to 6.35 dollars for refines. The U.K. will get 50,000 tons in 1949 at 3.95 dollars per 100 lbs.

### Rise in Production Costs.

The continuing rise in production costs is caused by higher wages required to meet living costs and increased prices of machinery, tools, fertilizers and sacks. Plantations occupying 40,000 hectares require 20,000 tons of fertilizer costing twice as much as in 1946. Even the cheapest cotton sacks are too expensive so that other substitutes of hard fibres may have to be used.

## SOUTH AMERICA.

### BRAZIL.

According to statistics published by the Sugar and Alcohol Institute, the output and disposal of Sugar during the past three crop-years (June to May) are as under in metric tons.

**TABLE NO. 15**

Crop year	Initial Stock	Production	Imports	Export	Consumption	Closing Stock
1946-47	103,988	1,481,259	0	5,203	1,336,158	243,886
1947-48	205,715	1,357,351	0	141,626	1,128,827	292,613
1948-49	292,613	1,414,696	0	311,630	1,245,418	150,261

### Future Prospects

The 1949-50 crop may show a reduction of 15 to 20 per cent compared with last season due to drought. Internal consumption has risen considerably over the last three years, and the need for sugar consuming industries has also increased and therefore it is highly improbable that any exports will be possible. The prospects for 1950-51 crop are said to be even more discouraging owing to prolonged drought which has not only checked growth of young cane but also interfered with new planting.

The cane yield per hectares was 38 tons during 1947 and 1948.

### Price of Sugar.

The Central Price Committee has established the retail price of refined Sugar at Cr. 4 per kilo.

## ARGENTINE

According to Messrs. E. Tornquist & Co. Ltd. the production during 1948 totalled 565,000 metric tons against 606,000 ton in 1947 and 635,000 tons in 1946. The decline was due to the drought. Domestic consumption is estimated at about 600,000 tons, a figure which may be on low side in view of increasing demand.

**TABLE NO. 16.**

Production, Trade and consumption.

Year.	Production.	Imports.	Exports.	Consumption.	Stock (31 Dec.)
1940	540,631	0	44,907	490,215	403,428
1944	459,367	74,701	532	494,212	204,300
1945	449,068	34,636	3,819	511,399	176,985
1946	634,543	22,529	2,560	566,544	263,567
1947	606,129	12,000	0	581,429	287,746
1948	565,000	—	—	—	—

### Rising Cost and Subsidy.

To maintain retail prices at their existing level and to offset the rise in the cost of production resulting from wage increases and higher manufacturing charges, the producers will receive an additional subsidy by the Government, wages are to be increased by 20 per cent as from the beginning of the 1949 harvest, including the field work and factory repairs, apart from other social benefits.

### PERU

Production in Peru during 1948 reached a new record. The total of 472,000 metric tons compares with the previous record of 460,024 tons in 1940 and 411,723 tons in 1947. The consumption during 1948 totalled 157,000 tons. Ten years ago the consumption was barely 95,000 tons.

TABLE NO. 17

Year	Production	Export	Consumption	Stocks
1939-40	464,288	327,570	101,839	55,666
1945-46	390,724	334,816	151,510	46,670
1946-47	419,543	240,155	163,114	62,964
1947-48	483,204	321,302	174,277	50,589

### CHILE

The sugar prices have, remained unchanged at 4 cents per lb. for the last three years, although most of the other prices have been raised by 40 per cent. It is expected that the home prices will be raised during the next time. There was a rumour of building 15 new beet sugar factories and Holland offered for one at cheap rate but the Ministry of Finance has not approved. The trials will however be continued on an experimental basis. The sugar purchases made during 1948-49 amounted to 181,250 tons imported from Peru and Cuba.

## CHAPTER V

### ASIA

#### Philippines.

The Philippine Sugar industry, which was almost completely obilerated during the war, is now definitely on the way to recovery. The war losses in mil and plantation properties have been tremendous but now substantial gains have been made during the crop that has closed. For a great majority of the mills there was still a wide gap between present and pre-war conditions especially in the fields.

The industry has been so far at 3/4th rehabilitated and is capable of a total yearly output of 700,000 tons of sugar, milled during the crop season instead of the pre-war capacity amounting in the 41 mills to 11,47,168, actually produced. The sugar industry is of primary importance to the welfare of the Islands, contributing at an average 63 per cent towards the total value of Philippines exports.

#### Production.

The 1948-49 production amounted to approximately 650,000 tons. This compares with 357,000 tons in 1947-48. Consumption in the islands at present is about 180,000 tons. Export to the U.S. will be about 500,000 tons.

#### Progress of Rehabilitation.

Production under the quota system before the war was in the region of 1,200,000 tons of which 952,000 tons were for export to the United States and the balance for local consumption and for emergency reserve. When the Japanese landed in 1942, production was stopped at 378,604 short tons. During the occupation, Japanese were not interested in making Sugar. The progress of rehabilitation is given below.

	Factories	Production (Short tons)
1945-46	5	12,927
1946-47	17	84,581
1947-48	24	400,000
1948-49	—	723,359 (Estimated)

The war set back the sugar industry of the Philippines at least ten years. Perhaps it will not be until 1951 or 1952 that the machinery of production both in the factory and in the field will regain their pre-war efficiency. During the war cane pests and diseases spread freely and creation of new and better producing cane varieties was halted.

In the meantime the fundamental problem of the Philippine sugar industry at the expiration in 1954, of the Philippine Trade Pact with the U.S. about duty free import of Philippine sugar into U.S. still looms large in the minds of the people. A lowering of the present high cost of production on the plantation and in the mills seems necessary.

The claim that foreign capital is reluctant to start investments in the islands, because of uncertainty of life or property, is repudiated as grossly inaccurate. It is however admitted that the flow of foreign capital is not so intense as was expected. The



reasons are lack of sufficient publicity and double taxation to which American investors are submitted with their income derived from the Philippine investment. Moreover the desire for occupying the field of exports by the Philipinos in their hands from the non-Philipinos is growing notably.

## INDONESIA (JAVA)

### **Present Situation.**

The acreage with cane indicated at the beginning of the year 1949 was of 320,000 to 340,000 metric tons for 1949. However the development of the situation as to peace and order made it impossible for a number of mills to start the grinding according to the schedule. The estimate for 1949 crop had to be decreased to 250,000 tons even at an optimistic level comprising:—Whites 150,000 tons and brown 100,000 tons.

This quantity is about the amount of sugar required for the home consumption. It is for the Indonesian Government to decide to export some of the portion and also to introduce rationing for the home consumption. The 39 sugar plantations situated in the Federal area of Eastern Java were all handed back to their owners in 1948. Some of the factories are so called reserve factories which before war, did not take part in production while some estate companies have merged with others.

### **The reason for slow progress.**

Rehabilitation of the sugar mills is going forward very slowly. The main reason is the uncertainty about the future political situation. The sugar mills are owned practically all by Dutch companies and no assurance can be given as to the future transfer of money. This makes the financiers rather reluctant to make plans for the future. The labour condition in a number of districts is still very chaotic and normal work cannot be expected.

The reason for the reduced crop in 1949 is that firing of cane fields and cutting (stealing) of cane has taken place on a large scale. Besides, sucrose content and weight of cane has been disappointing, partly due to the grinding of cane which in order to prevent total loss by destruction was of necessity not cut at the most favourable moment. There are mills where upto 90 per cent of the cane has been wantonly destroyed or stolen.

The unrest still continues. Labour is short; transport is not available and mills are working intermittently due to want of cane resulting in using more fuel than expected, all play their part in the production of a smaller crop than reckoned with.

The general unrest in some districts prevented planting cane for next season, many mills were unable to complete their programme, in other instance it became too late to plant. The firing of cane caused a loss of "tops" needed for planting, whilst there was also a shortage of cane for laying out seed beds to be used next year for planting.

There has been a shortage of sugar in the open market, limited supplies were only obtainable at very excessive prices. Ration has been introduced again, amounting to 1 kg. a head per month of Brown sugar. Black market still flourishes and cannot be suppressed.

The prospects for crop 1950-51 were not so very bright. The present estimate is at 450,000 tons but it is an unanswered question as to whether it can be realized.

The following Table No 18 gives the Production, Exports, consumption and stocks of sugar in Metric tons during the last six years.

TABLE No. 18.

Year.	Production.	Years.	Exports.	Consumption.	Stocks.
1942	1,339,976	1936-37	1,125,656	324,000	660,614
1943	682,900	1937-38	1,094,466	322,589	691,674
1944	496,433	1938-39	1,174,313	320,101	747,849
1945	28,000	1939-40	1,101,666	334,865	956,435
1946	0	1940-41	841,986	370,196	1,282,229
1947	18,000	—	—	—	—

Estimated Stocks			Metric tons	
At the time of Japanese Invasion, 1942	..		appr.	1,000,000
At the time of Japanese Surrender, 1945	..			1,590,000
At 1st May 1947	..			892,000
At 1st May 1948	..			475,000

### Java's Biggest Sugar Factory Restarts.

Java's biggest sugar estate and factory near Cheribon which can produce 3500 tons of sugar a day, began work on April 27, 1949 for the first time since 1945 when it was abandoned by the Japanese. Attempts to destroy the factory during the first Dutch police action in 1947 were foiled by the removal of explosives. Since September 1948, the employees of the estate returned and last year about 4000 acres were planted so that a start could be made of sugar refining. Eleven thousand Indonesian workers will take part in a big sugar production campaign at the estate plus 2000 in the factory.

### Export Duty Reduced.

The export duty on sugar of 1948 crop and later, has been reduced to 3 per cent as from 1st February, 1949. When the value is more than fl. 25 per 100 kilos, 10 percent must be paid on the excess value. However, not more than 8 cent of the total value should be paid.

### Internal and External Sugar Price.

At the present moment there is a very big difference between the sugar price for the interior and that for export. This sugar is sold through the NIVAS at a fixed price that may be sixty guilders per quintal for raw sugar and sixty five for white sugar. The sugar to be exported either to the sterling area or to the dollar area (Japan) is usually at the level of the world price, London and New York. This means that sugar for the home consumption is more than twice the price of the export sugar.

### Indonesia 1948 Exports.

Exports of sugar from Indonesia in the calendar year 1948 amounted to 71,137 metric tons. Of this quantity 15,927 tons went to Holland, 11,894 to the U.K., 15,423 to Japan and rest to Hongkong, Singapur & elsewhere.

### Statistical Summary.

Sept/Aug. 1948/49	Metric tons
Production	21,653
Import	3,881
Exports	7,042

## FORMOSA (TAIWAN)

The sugar production of the Taiwan Sugar Corporation for 1948-49 amounted to 631,346 metric tons, exceeding the original estimate by 21 per cent, which may be compared with 259,142 English tons in 1947-48. Last season's output was some 35 per cent higher than estimates made at the beginning of the season. The excess of 21 per cent during 1948-49 was partly due to unusually favourable climatic conditions and partly by the increased amount of fertilizers applied per hectare. Most of this sugar will go to foreign countries, with a small amount retained for local consumption.

Production for 1949-50 is estimated at some 600,000 tons.

## JAPAN

It goes without saying that Japan, without Formosa after the War, shall depend almost solely on foreign markets for her sugar requirements. According to the "White Paper on Japan's trade" issued by the Govt. of Japan, the "dependence of national sugar consumption upon imports changed from 87.9 per cent (1930-34) to 21.9 per cent (1945) and to 98.3 per cent (1948)

Year.	Production.	Import.	Available.
1930-34	177,700	853,100	970,800
1946	10,000	2,799	12,799
1948	10,000	565,494	575,494

There is good reason to anticipate bigger sugar production in Japan in the near future, and her dependency on foreign markets in this respect will naturally decline considerably.

### Sugar Price.

The prices of imported sugar have been reduced as under from 11th May, 1949. This was made possible by abolishing consumers tax of yen 20 per lb.

	Revised (Yen per Kin)	Former (Yen per Kin)
White Sugar	38.00	50.00
Formosan White	34.50	50.00
Cuban Raw	27.70	40.00

Locally produced sugar will be taxed as before but the price to the consumer will be the same as for imported sugar.

### Ration and Control.

The sugar ration has been reduced from June 1949 onward from 300 gr. per capita to 150 gr. per month. It will be restored to 300 gr. per month in January 1950. The Confectionary Manufacturers Association are united in their demand for the lifting of control on the ground that sweets shall be placed on equal footing with beer and wine. But the government holds that sweets are a luxury and so there seemed to be no chance for the lift of the control for sometime to come.

### Trade.

The sugar imports are to be financed out of ordinary commercial funds accumulated by Japanese exports. It was therefore expected that only about 100,000 tons sugar may be imported during the next fiscal year but later on it was restored to its former

size of 329,000 tons. Sugar importers are requested to register themselves at the Finance Ministry. The registered sugar importers will form an association, and when a certain business is closed, the contractor shall be entitled to take some 25 per cent share of it, leaving the rest 75 per cent to be shared among all fellow members of the Association including the very contractor.

### **Prospects of Distillery Industry.**

Japan has a good chance to enter the world market for molasses which is in the line of sugar trade. Cuba has sold 70,000,000 gallons of molasses to Great Britain at 3 cents a gallon. If Japan could get it at such a dirt cheap price, it might save much foodstuffs which go to distilleries for making alcohol. It is expected that U. S. may well supply cheap molasses out of ordinary commercial fund. (GARIOA)

### **CHINA.**

The Chinese sugar situation has been severely complicated by the recent military events. The sugar districts in Southern China are now in the hands of the Chinese red army. Some months ago, it was estimated by the Chinese Government that the Chinese sugar production could be estimated at 390,000 tons in 1948-49. As long as Formosa is in the hands of the Nationalists, the Sugar supply of China will be very tight. On the other hand, Formosa will be prevented from delivering sugar to China, so that it must search for new outlets on the World's free market. In this case, the normal market for Formosa sugar would be Japan.

As the events in China are still in fluid state, it is impossible to say how the sugar situation will develop during 1949-50.

### **THAILAND.**

#### **Thailand Sugar Organisation.**

The Thai sugar factories were reorganised and raised to the status of an organisation on November 18, 1948. An overall production of about 30,000 tons of white sugar per year is obtained from all the mills in the country put together. The internal demand is 40,000 tons and the Government is contemplating the erection of two more sugar mills with an overall annual capacity of 11,000 tons.

### **CEYLON.**

#### **Ceylon's large Jaggery Imports.**

A large increase in the import into ceylon of jaggery from India is reported by the Indian Government Trade Commissioner, Colombo. In February, 1949 alone, 18,987 cwts. of jaggery were imported from India.

#### **Ceylon Survey to set up sugar Industry.**

An Indian Expert (Mr. D. G. Walawalkar' from the Indian Institute of Sugar Technology was invited to Ceylon to carry out a survey and advise the Government on the establishment of one or more sugar factories there. The Ceylon Minister for Industries earlier visited India in this connection. Prof. Walawalkar said during his visit that there were possibilities for the establishment of two sugar factories in north Ceylon, provided irrigation facilities and land were made available. He said that sugarcane could be profitably cultivated in that area and he estimated the annual yield of two factories at 20,000 tons. It would also provide employment to a large number of persons.

## PAKISTAN

### N. W. F. P.

#### 1. Asia's Biggest Sugar Factory.

It is learnt that Asia's biggest sugar factory, now under speedy construction in Mardan will begin work in February, 1950. Practically all heavy machinery, weighing together 4500 tons has arrived from England and is being fitted up by British skilled engineer. The new factory will do much to meet the present demand for sugar throughout Pakistan. It will also yield molasses for power alcohol to relieve the petrol shortage in Pakistan.

The maximum annual crushing capacity of the factory is estimated at 500,000 tons of cane yielding about 50,000 tons of sugar. Located in the best sugarcane producing area in the province, it will have an almost unlimited supply of cane. The total value of the machinery is about Rs. 65 lakhs.

#### 2. Production in N. W. F. P. during 1948-49.

The production in the 1948-49 season is expected to be 216,000 maunds of sugar exceeding the previous year's figure by 12,000 mds. The recovery of sugar percent cane has also improved from 7.5 last season to 9.5 in 1948-49.

#### 3. Development Fund.

A special fund has been created to help the development work in the N. W. F. P. The sugarcane growers are required to contribute half an anna per md. of sugarcane brought to the mills and an equivalent amount is contributed by the mills. This will give 1.62 lakh of rupces. This will be increased by Rs. 1 lakh when the Frontier sugar mills is extended and will roughly total Rs. 7 to Rs. 8 lakh after the new sugar factory comes into operation in 1950.

#### (4) Sugar Ration raised in N. W. F. Province.

The provincial government has raised the basic ration of sugar to two seers per head per month from 18th November 1949 in the urban areas. The quotas for establishments may also be raised by 33 per cent in addition to the 50 per cent increase already made.

#### (5) Gur Exports to Eastern Pakistan.

In October 1949, The N. W. F. P. Government asked *gur* dealers in the province to take advantage of the ban on the import of *gur* from India into Pakistan and make arrangements for *gur* exports to Eastern Pakistan where there is a favourable market conditions. There is a deficit of *gur* in Eastern Pakistan to the extent of 20,000 tons annually. Hitherto this quantity used to come from India. Prices in East Bengal are appreciably higher and will cover all expenses of transport from N. W. F. P. to East Bengal and will also leave a reasonable profit.

Export of *gur* in limited quantities to Iran, Afganistan and Persian Gulf countries was also permissible on payment of an organisational fee of Rs. 2/- per md.

#### Prices of Sugar.

The trend of wholesale prices of refined sugar was as follows. Comparative figures of pre-partition and partition date are given alongside for comparison.

## Price per maund

	8—8—39		15—8—47		9—3—49		6—4—49	
	Rs.	As.	Rs.	As.	Rs.	As.	Rs.	As.
Karachi	10	0	24	5	36	0	36	0
Mardan	N. A.		N. A.		40		40	0
Dacca	N. A.		41	14	38	12	38	12

**Treaty with Poland.**

According to a commercial treaty concluded between Poland and Pakistan, Poland shall deliver 3000 tons of sugar in exchange of 2000 tons of jute.

## CHAPTER VI

### UNION OF SOUTH AFRICA REVIEW OF SUGAR INDUSTRY FOR 1948-49.

#### Production goes up.

The total sugar production by the industry in the season which ended with April 1949 was 607,845 short tons, an increase of 95,840 tons compared with the output for the previous year and only 6,313 tons less than the record of 1944-45. The tonnage of cane harvested was 5,216,144 tons, an increase of 672,889 tons on the 1947-48 crop. Although the weather cycle was not fully favourable, by reason of a prolonged winter drought which retarded development of young cane, the net effect was a stimulation of the sucrose content of the crop to be harvested, which yielded an average of 13.89 per cent. This yield was 0.57 per cent greater than that of the previous season.

#### Technical Results.

The ratio of cane to sugar was 8.58, a recovery bettered in only two seasons during the last twenty years. The average extraction was 93.32, a fractional decrease, due mainly to the continued abnormal average fibre content of the cane. The overall recovery of 83.19 and reduced overall recovery of 83.85 were only slightly lower than the record of last season.

The following table discloses the total production by the industry, the consumption and the export in tons of 2000 lbs.

TABLE No. 19

Year (May-April)	Production	Consumption	Export
1940-41	572,880	328,835	234,025
1941-42	452,119	378,547	59,316
1942-43	524,975	455,696	48,316
1943-44	585,392	440,999	154,408
1944-45	614,158	483,787	111,890
1945-46	553,074	445,586	71,741
1946-47	474,769	440,560	10,000
1947-48	512,005	503,728	10,000
1948-49	607,845	567,908	15,024

(1 Short ton = .89 long ton)

The national consumption was greater than anticipated. There was a marked increase in the demand for domestic use and total sales to all consumers amounted to 567,908 tons—an increase of 46,180 tons equal to 12.74 per cent over those of last season.

#### Export Trade.

The desirability of increasing the export trade of the union, was felt urgent and the resumption of sugar exports was considered to be a welcome contribution toward the improvement of the Union balance of trade payments position.

### **Basis for price of cane.**

Another progressive step has been the simplification of the payment for sucrose which is now on a uniform basis. This eliminated some of the multifarious calculations that were formerly necessary to arrive at the price of cane. The pooling of railage on sugar as in vogue made for simplicity and removed a long standing grievance of the industry. Practically it can be said that there is only one basic price for cane, irrespective of the variety and the district in which it is produced.

### **South African Sugar for the United Kingdom.**

Britain is to get 45,000 tons of sugar from South Africa in the next five months. Under the arrangements between the Ministry of Food, U. K. and the South African industry the sugar will be expected to U. K. during the remainder of 1949.

### **MECHANISATION POLICY.**

During the year in review the considered policy of mechanising the agricultural activities of the industry has been substantially advanced and the measure of success achieved was noteworthy. The continued shortage of unskilled labour and its generally low standard of efficiency have contributed to the increase of working costs on the cane farm. The progress so far achieved towards mechanisation has attracted considerable interest in the Union and in other sugar producing countries.

### **MILLING RESEARCH INSTITUTE ESTABLISHED.**

The establishment of the Milling Research Institute by the Mill's Association has marked a further advance in the progress to the highest efficiency in science and technology of sugar processing.

### **SUGAR INDUSTRY CONTROL BOARD.**

This board successfully resolved with the various problems concerning quota allocations and adjustments, affecting the effective operation of the Sugar Industry Agreement, including cane sampling and testing services, crop classification, cane payments and a cane acreage survey.

### **THE EXPERIMENT STATION.**

The scientific research and experiment activities of this organisation were carried out during the year with high efficiency. It has expended in importance and its practical contribution to the improvement of the knowledge of cane cultivation and husbandry have been of great benefit to the industry.

### **STATISTICAL SUMMARY.**

The 1948-49 crop and its disposal	Tons
Stock carried over from 1947-48	63,387
Production	607,845
Total	671,232
Consumption	567,908
Export	15,024
Losses etc.	7,028
	589,960
Stock carried into 1949-50	81272



**AFRICA.****Egypt.**

During 1948-49 the production is estimated at 207,000 tons and the consumption at 200,000 tons.

**TABLE NO. 20.**

(Metric tons, raw value.)

	1947-48	1946-47	September/August 1945-46	1938-39
Initial Stocks	85,978	64,397	60,788	80,325
Production	222,505	190,779	179,857	162,057
Imports	28,177	21,270		51,603
Total	336,660	276,446	240,645	293,985
Exports	23,341	9,805	11,091	76,924
Consumption	192,580	171,486	166,923	147,960
Closing Stock	126,923	85,978	64,397	68,228

**BRITISH EAST AFRICA****Uganda.**

Uganda sugar production has virtually stopped, because of severe drought and she has no prospects of resuming exports for at least two years. The drought worst in last 28 years, has necessitated import of large quantities of sugar from Mauritius, to all East African territories which normally export their surplus production.

In other parts of British East Africa there was a long spell of drought lasting for nearly five months. So far as 1949-50 season is concerned there will be a fall in output by 25 to 33 per cent. There will be nothing for export in 1949 and import is talked of.

**BELGIAN CONGO.****Twenty years of Sugar Industry.**

A bulletin showing the development of the sugar industry from 1929-30 to 1948-49 has been printed. Acreage under cane has risen more than five times and the quantity of cane crushed increased 15 times. Sugar content has improved from 12.54 per cent to 13.39 per cent. The production of sugar is twenty times higher. Regarding disposal, the local consumption has increased six times and exports to Belgium gone down to one-fourth.

## CHAPTER VII.

### AUSTRALIA

The Australian sugar industry which claims to be the most efficient in the world is stepping mechanisation with the object of increasing its already considerable output.

#### **New Record Crop.**

The season 1948-49 has ended with a total production of 916,000 long tons of sugar raw value. This is 28,000 tons more than the previous record crop of 1939. The start of 1948 season was marked by a more plentiful labour supply for the first time since 1941 neither mills nor farms have been seriously handicapped by labour deficiencies.

**TABLE NO. 21.**  
Crop Statistics.

year	Acres (1000).	Cane crushed (1000s) tons.	Sugar (1000) tons.	Cane per acre.	Sugar per acre.	Cane to 1 ton sugar.
1938	251	5342	778	21.3	3.1	6.9
1939	261	6039	891	23.1	3.4	6.8
1940	266	5181	759	19.5	2.9	6.9
1941	247	4794	697	19.4	2.8	6.9
1942	238	1351	606	18.3	2.5	7.2
1943	229	3397	486	14.8	2.1	7.0
1944	222	4398	644	19.8	2.9	6.8
1945	240	4552	645	19.0	2.7	7.1
1946	228	3714	512	16.3	2.2	7.3
1947	221	4151	572	18.8	2.6	7.3

#### **Beet Sugar.**

Beet sugar production is to be abandoned owing to the Victorian Governments failure to obtain assurances from the farmers that a steady supply of beets would be available to the factory to enable it to operate economically. The Maffra Beet factory is to be leased for the processing of maize products. Production last year totalled only 583 tons against 1014 tons in the previous season and 6,220 tons in 1940.

#### **Export, Imports and Stocks.**

The figures for imports, exports, consumption and stocks of sugar from 1937-38 September-August to 1947-48 are given below in Table No 22,

**TABLE NO. 22.**

Period (Sep.—Aug.)	Imports.		Exports.	Consumption.	Stocks at the end of August.
	Metric Tons.				
1937-38	18		406,469	352,270	128,537
1938-39	51		465,651	350,040	141,876
1939-40	337		519,486	377,252	141,876
1940-41	13		275,765	401,029	265,354
1941-42	1952		177,557	510,929	175,468
1942-43	0		75,831	470,702	250,328
1943-44	0		92,863	494,648	189,429
1944-45	0		180,526	449,241	156,484
1945-46	0		171,844	447,378	210,226
1946-47	0		67,065	449,317	123,923
1947-48	0		142,887	486,410	222,393

Export of Sugar was made mainly to United Kingdom and New Zealand.

### Australia to increase Exports.

During 1948-49 Britain will receive 300,000 tons more sugar from Australia than were shipped last year. Last year about 100,000 tons of sugar were exported to Britain. This year Canada will also receive 35,000 tons of sugar.

**Average Sugar Price for last five years**

Season.	Sugar for Australian Consumption.			Sugar for Export.		
	£	s	d	£	s	d
1943	22	10	6	13	2	6
1944	22	2	0	15	0	6
1945	21	18	0	16	17	9
1946	21	18	0	21	10	0
1947	24	0	0	29	12	6

All manufacturers using sugar pay for it at the Australian consumption price, but those processing fruit receive a domestic sugar rebate of £2-4-0 per ton on the sugar content of all their fruit products, provided they use only Australian fruit purchased at reasonable price.

The price at which the contract for 1948 sugar was negotiated was that applicable to shipments on and after the 1st January 1948 viz. 27s. 3d. per cwt. c.i.f. United Kingdom based on the agreed pre-war freight rate of 35s. 6d. per ton. This figure—27s.3d per cwt—has been maintained for the current year commencing 1st January, 1949, although certain colonial shippers are still contending for an improved price based upon their increased costs of production.

### Important Points.

- (1) The overall average tonnage of cane required to produce one ton raw sugar in the season 1947-48 was 7.29 tons.
- (2) The overall average tonnage of cane per acre in the season 1947-48 was 19.85 tons.
- (3) Average price of cane per ton is 50 shillings. The rates vary according to the percentage of commercial cane sugar in the cane when delivered to the mill and according to the price received by the mill for its sugar.
- (4) Australian consumers pay 4½d. per lb retail, whereas retail price in the U.K. is 5d. sterling, equivalent to 6.25d. Australian. Shortly the retail price in Australia will be increased to 5d. per lb.
- (5) Average production of power Alcohol in Australia is 1½ million gallons per annum.

CHAPTER VIII.  
**BRITISH COLONIES**  
**JAMAICA.**

**Good year for Jamaican Sugar Industry.**

Sugar production in Jamaica from 1949 cane crop reached an all-time high record of 237,744 tons which compares with 192,814 tons in 1948. The estimate of the 1950 crop is raised to 251,500 tons. Exports during 1949 will approximate 193,000 tons. As against this record production total domestic consumption in 1948 amounted to only 42,175 tons as compared with 40,098 tons in 1947. In latter part of 1948, the sugar Control Board increased the local quota to 45,000 tons to ensure adequate supply. Exports were made to U.K., Canada and others. Visible stocks held by the Sugar Manufacturers Association on 31st December 1948 were 8,556 long tons.

**TRINIDAD.**

According to the West Indies Committee, the 1949 season has finished with a crop of 159,032 tons. This is an all time record and exceeds the previous record set up in 1936, by about 4,500 tons.

**Trinidad Sugar Industry Commission 1948.**

The commission under the chairmanship of Lord Soulbury appointed in 1948 has submitted its report. It makes 36 recommendations. Three of these recommendations are use of lime. to be subsidised on mechanically ploughed cane farmers' holdings, formation of a Cane Farmers' Association on the lines of Jamaican organisation and regulation for the payment of cane price by the manufacturers.

**Price Formula.**

A new formula to determine the price of cane has been proposed, in which the depreciation allowance would be 16 s. per ton of sugar instead of the present fixed sum and the interest allowance 24 s. instead of 20 s. per ton. The special funds should be employed, a part of the Rehabilitation Fund, being set aside for the purchase of field equipment, of which the cane farmer will get a proportionate share; and the Labour Welfare Fund should be used in whole or in part to provide loans for the building of houses for workers in the sugar industry. So far as possible, tasks and rates should be standardised throughout the industry.

The U. K. Government should be requested to announce the price of sugar not later than the end of November each year.

**MAURITIUS.**

There was every indication that the 1949-50 crop will establish a new record breaking those successively set up in 1947-48 and 1948-49. The figure is 425,000 tons (Only one factory produced white sugar in 1949, all the others turning out raws.) The 1948 campaign ended with a total of 395,067 metric tons. This was due largely to favourable weather and to extended planting of locally cultivated cane. In 1947 the production was 350,000 tons.

**BRITISH WEST INDIES.**

The West Indies have put up a scheme to the U. K. Government to expand their sugar production within the next 5 years by 500,000 tons. It was understood that the U. K. Government have asked for full details and are inclined to look at the scheme favourably. If this ultimately goes through, the gap caused by the disappearance of dollar sugar will be filled by West Indies production.

## B. W. I. SEEKS PURCHASE AGREEMENT

In August 1949, a deputation on behalf of the British West Indies Sugar Association visited the U. K. to point out that considerable dollar savings by expansion in sugar production can be achieved in the B. W. I. provided that an assured market for this increased quantity on reasonable terms is offered by the U. K. This would not only provide employment for half a million additional persons, but would also mean a dollar saving of £ 550 million, at pre-devaluation prices.

In a communique issued by the Colonial Office at the end of the talks with the Food Ministry, the U. K. Government announced their intention of making long term arrangements which will give the sugar producers in the West Indies, and elsewhere in the Commonwealth, firm assurances of markets for agreed tonnages of sugar at remunerative prices and of undertaking consultations to that end with the representatives of the Commonwealth producers before the end of the year 1949. This clearly involves the considerably increased exports from the B. W. I.

### PRODUCTION

The average production of sugar during the last three seasons was 110,000 tons. In pre-war period the total output was 150,000 tons annually.

TABLE NO. 23.

Cost of cane per ton

	Estate Cane Cultivation				Outside Cane			
	Cost.		Total Cost.		Purchase Price		Total Cost.	
	\$	c	\$	c	\$	c	\$	c
1944	5	23	6	69	5	50	7	28
1945	6	14	7	65	5	84	7	70
1946	6	28	7	77	6	77	8	44
1947	6	29	7	81	6	52	8	34
Weighted Average.	6	05	7	55	6	25	8	2

The cost of estate cane was 20 cents a ton less than the purchase price of grower's cane.

Cost of Production of Sugar

Year					Average	
					\$	c
1944	..	..	..	..	95	42
1945	..	..	..	..	106	11
1946	..	..	..	..	100	94
1947	..	..	..	..	109	88
Weighted Average.					103	59

## CHAPTER IX

### EUROPE

**1. Licht's Estimates of the European Sugar Beet Area for 1949** with (In Hectares) comparative figures of previous campaigns are reproduced below.

TABLE NO. 24

Countries	1949-50*	1948-49	1947-48	1938-39
Germany	(Hectares)			
Western Germany	144,678	146,921	148,321	—
Eastern Germany	202,000	199,589	206,000	—
Total Germany	346,678	346,510	354,321	540,971**
Danzig	—	—	—	5,768
Czechoslovakia	200,000	170,365	170,464	113,634
Austria	27,000	23,410	19,855	—
Hungary	105,000	95,000	93,000	45,200
France	310,000	244,033	230,000	241,388
Belgium	52,000	45,231	52,115	49,689
Holland	67,000	46,737	50,791	43,504
Denmark	61,500	48,040	43,816	38,932
Sweden	48,800	47,544	48,203	50,760
Poland	285,000	223,000	209,792	149,478
Italy	130,000	110,000	118,420	145,008
Spain	100,000	94,000	48,000	44,000
Slovakia	—	—	—	13,900
Yugoslavia	35,000	33,000	27,000	29,066
Roumania	62,000	60,916	47,520	55,677
Bulgaria	28,000	35,500	17,668	11,778
Switzerland	5,430	5,423	5,238	2,900
Great Britain	163,400	163,499	149,952	133,510
Ireland	22,500	25,730	23,277	19,625
Finland	1,500	6,600	3,982	5,186
Latvia	—	—	—	14,211
Lithuania	—	—	—	7,600
Turkey	53,000	48,895	45,292	21,022
Europe Excluding USSR	2,109,408	1,873,423	1,758,706	1,782,807
U.S.S.R.	—	200,000	1,850,000	1,180,100
Europe including USSR	—	3,973,423	3,608,706	2,962,907

(\*) Estimate  
(\*\*) Includes Austria and Sudetan Districts

In *Germany* the 1949 sugar beet area has not reached that of last year. The reason may be seen in the fact that the sugar taxes have not been reduced as demanded by the German beet farmers and the sugar industry. In comparison to other cultures, sugar beets are no longer profitable culture and sugar factories have difficulties to contract the beet area wanted, possible and necessary for meeting the German sugar consumption at least to the extent possible.

The *Czechoslovakian* figure is still a preliminary one as no official figures have been published so far by the Czechoslovakian authorities. In *France*, the sugar beet acreage is partly used for the production of alcohol and partly for the production of sugar. It will be ordered later in the year which percentage of the beet acreage shall

be used for the production of sugar and which part for the production of alcohol so that it is somewhat difficult to estimate the sugar beet acreage destined for sugar production. Last year 244,034 hectares have been used for the production of sugar and rest for the production of alcohol out of a total acreage of 315,000 hectares. This year we now estimate the beet acreage for sugar production at 310,000 hectares. It may be possible that final figure may show still some alterations.

The *Polish* sugar beet area is far above the 1949 target which provided for a sugar beet area of 233,000 hectares with a sugar beet acreage of 285,000 hectares. Poland will hold the third place among the European sugar beet cultivating countries. In *Italy* the sugar beet acreage has reached 130,000 hectares i.e. 20,000 hectares more than last year.

The total European 1949-50 sugar beet acreage will probably reach 2,109,408 hectares against 1,873,423 hectares in 1947-48. This means an increase of 235,985 hectares or 12.6 per cent. The average sugar yield per hectare was 3.59 metric tons, raw value. On the basis of this average yield, every 100,000 hectares mean an increase of production of 359,000 metric tons. Thus, an increase of sugar beet acreage of 235,985 hectares would mean an increase of about 850,000 tons.

## II. European Beet Sugar Production.

### Estimates.

TABLE NO. 25.

Countries	1948-49	1947-48	1946-47	1940-41
Germany	1,303,544	781,673	998,141	2,684,130
Czechoslovakia	628,083	351,301	590,890	597,427
Hungary	242,856	153,100	68,300	157,968
France	960,157	664,320	765,218	461,516
Belgium	259,735	137,189	234,454	251,787
Holland	284,996	220,763	247,800	292,950
Russia & Ukraine	3,000,000	2,700,000	2,600,000	2,146,000
Poland	690,000	550,131	427,076	517,857
Sweden	291,592	243,330	290,500	304,171
Denmark	265,041	225,222	214,715	249,355
Italy	375,000	216,328	239,670	536,607
Spain	265,144	133,500	158,670	167,947
Switzerland	24,000	21,350	24,972	14,088
Bulgaria	60,000	18,685	33,115	47,321
Roumania	100,000	81,800	34,963	126,434
Great Britain	566,964	429,160	556,731	479,943
Ireland	85,492	65,237	61,174	68,893
Yugoslavia	90,000	80,000	40,000	106,331
Turkey	118,102	96,635	96,587	88,668
Other Countries	116,000	82,000	72,000	98,831
Total	9,726,706	7,252,124	7,754,976	9,398,224

Source—Willest & Gray's Estimates Long Tons

Beet sugar production in Europe which had dropped to 4½ million tons in 1945-46 from 9½ million tons in 1940-41 again showed a steady incline and is expected to produce 9½ million tons in 1948-49. Germany produced 2.7 million tons of sugar in 1940-41. The production in 1948-49 was 1.3 million tons. It has thus reduced to 50 per cent. The production in the USSR is expected to well exceed the pre-war level of 2.5 million tons. As everybody knows, it is very difficult to gain a reliable survey of the situation in this country as official figures are mostly not published. On account of this situation, the estimates published by the different world sugar statisticians show wide differences and the estimate of 3 million tons as given above is taken to be too high. Had this been true, USSR would not be so anxious to import even small quantities of sugar from Poland, Czechoslovakia and other countries but

would export large quantities of sugar. In Great Britain the production is expected to exceed the pre-war output producing 566,964 tons during 1948-49 against 479,943 tons in 1940-41. There have been similar increases in Hungary, France, Poland and Czechoslovakia. In other countries such as Holland, Sweden, Italy, Yugoslavia and Roumania there have been decreases in 1948-49 as compared to pre-war years. But there is expected to be an all round increase in 1948-49 taking Europe as a whole against the production in previous year of 1947-48.

In *Germany* the beet sugar acreage in the spring of 1949 was 148,501 hectares against 146,921 hectares in 1948. The condition of the sugar beets in Lower Saxony is generally good ; at the Rhine, it is medium or good ; while in Southern Germany they suffered considerably so that conditions have to be called unfavorable there. Therefore, beet yields will be rather different in the various sugar beet districts of Western Germany. The sugar content is also showing considerable variation. Taking into consideration the recent heavy precipitation, it may be expected that the sugar content will decrease and will not reach the height of last year. Therefore, the three Western Zones can only expect a sugar production of some 585,000 metric tons, raw value, against 623,544 tons last year.

The beet yield of the whole Eastern Zone at an average of 17.0 tons per hectare, so that we may expect some 3.5 million tons of beets which will provide some 525,000 tons, raw value or about 473,000 tons refined. With a production of 473,000 tons, refined, the Soviet Zone will remain far behind the goal which planned a production of 700,000 tons, refined.

Contrary to many other figures, the 1949 sugar beet acreage of *Austria* reached only 24,000 hectares against 23,400 hectares last year. In general, the situation of the beets is called good. We estimate the 1949-50 sugar production at 80,000 metric tons, raw value, against 48,889 tons last year.

*Czechoslovakia* belongs to those countries which suffered very much from the drought this year. Therefore, the sugar beet yield will probably be 15 or 20 per cent smaller than provided in the goal. On the whole, some 4,200,000 to 4,400,000 tons will be available for sugar production while 3,802,000 tons had been worked last year. The larger beet yield in spite of the more unfavourable situation was due to the increase of the sugar beet acreage from 170,365 hectares in 1948 to 203,016 hectares in 1949. Taking into consideration a corresponding yield, we may expect a sugar production of some 710,000 metric tons, raw value, against 632,310 tons last year.

The *Hungarian* sugar beet acreage reached about 105,000 hectares in spring 1949 against 93,851 hectares last year. Like in Austria favourable weather conditions prevailed in Hungary so that a good sugar beet yield is expected. The sugar production is estimated at 265,000 metric tons, raw value, against 242,856 tons last year.

In *France*, the total of 1949 sugar beet acreage reached some 411,000 hectares against 315,000 hectares last year. The growing of the beet was considerably handicapped by the drought during the summer, heavier precipitations were, however, registered during the last weeks which furthered the growing of the sugar beets, improving their standard. Nevertheless, the expected yield per hectare will be under last year's level. The French Secretary of Agriculture estimated the beet yield at 80,00,000 tons recently. This would mean a beet yield of 19.49 tons on an acreage of 411,000 hectares against 29.17 tons last year. The level of sugar production will be determined, in large part, by the quantities of sugar beet provided for sugar production and the quantity for the production of alcohol. According to our information, one third of the quantity of sugar beets originally provided for alcohol production will be increased from 50,000 to 70,000 tons. Taking into



consideration this fact, as well as the better condition of sugar beets now, we estimate the 1949-50 sugar production at some 1,100,000 metric tons, raw value, against 960,156 tons last year.

In *Belgium*, the sugar beet acreage reached 58,695 hectares in 1949 against 45,231 hectares last year. The beet also suffered under the drought. Considering the expanded area under cultivation, we may expect a large sugar production. The sugar production probably will reach 265,000 metric tons raw value, against 259,735 tons last year.

In *Denmark* development of sugar beet was hampered by drought during the first half of September. During the second half of this month good soaking rains have been registered everywhere. The 1949-50 sugar production can be estimated at 310,000 metric tons, raw value, against 265,000 tons last year.

The *Polish* sugar beet acreage reached 250,000 hectares in 1949 against 223,515 hectares in 1948. Weather conditions were favourable for the development of the sugar beets so that their state is called good. Taking into consideration the favourable situation of the sugar beets, we estimate the 1949-50 sugar production at 825,000 metric tons, raw value, against 693,751 tons last year.

In *Italy*, the sugar beets have been favoured by weather conditions during the growing period 1949. A short time before the beginning of the campaign, their standard was called good. The harvesting of the beets and their working which was started in August has been undisturbed until now. Probably, sugar production will reach 465,000 metric tons, raw value, against 455,556 tons last year.

In *England*, dry weather prevailed during the last week of August and the first half of September. While little rain fell, it remained insufficient. It was only at the beginning of the second half of this month that heavy precipitation could be registered which will also have a good effect on the sugar beets. As the real effect of the rain only a short time before the harvest can hardly be seen it is somewhat difficult to estimate this year's sugar production. The area under cultivation is 163,000 hectares, the same as last year. The state of the beets is doubtlessly lower. We believe it reasonable if we estimate the 1949/50 production at some 575,000 metric tons, raw value, against 639,775 tons last year.

In *Eire* present prospects for the sugar beet crop are good, and reports would indicate an average yield per acre in excess of that produced last year. While the total acreage grown is less than that of 1948, the increased yield per acre will compensate to a considerable extent for the reduced acreage. A total production of 85,000 metric tons, raw value, is estimated from this year's crop as against 94,731 tons produced last year.

In *Finland* the beet crop is estimated at 180,000 tons and sugar production at 23,000 metric tons, raw value, against 21,043 tons last year.

The *Turkish* sugar beet acreage was increased from 48,895 hectares in 1948 to 53,000 hectares in 1949. In general, weather conditions were favourable for the development of the sugar beets. 1949-50 production is estimated at 122,000 metric tons, raw value, against 131,224 tons last year.

In the *Soviet Union* according to the figures recently published by "Pravda" 1,980,000 metric tons were produced in 1948-49 against 1,620,000 tons. In 1949, sugar beets were favoured by the weather conditions, showing a good standard. It seems, however, doubtful whether the expected production of 2,780,000 tons, provided by "Pravda" will be reached. For the time being it is preferred to estimate the production at only 2,400,000 tons.

#### IV. Imports and Exports :—

Sugar Imports of European countries as compiled by M/s. F.O. Licht are given below in Metric tons.

**TABLE NO. 26**

Importing Countries	1948-49 Estimate	1947-48 1937-38 (Metric tons—raw value)	
Great Britain .	2,160,000	1,846,578	2,436,388
Germany	355,000	554,674	18,556
France	300,000	106,738	347,223
Switzerland	180,000	218,224	165,840
Austria	136,000	47,000	541
Holland	110,000	195,742	160,134
Norway	90,000	77,335	96,315
Portugal	85,000	82,781	67,784
Greece	75,000	65,000	89,084
Finland	70,000	79,000	110,380
Belgium	30,000	150,000	167,112
Others Countries	105,000	170,148	129,754
Total	3,696,000	3,603,220	3,819,111

(Source :—F.O. Licht's Sugar Information Service)

#### Exports :—

Sugar exports of the main exporting European countries for 1947-48 and 1937-38 are given below :

**TABLE NO. 27.**

(Metric tons, raw value)

	1947-48	1937-38
Czechoslovakia	98,000	320,000
France	194,000	211,000
Belgium	18,000	119,000
Holland	90,000	66,000
United Kingdom	591,00	418,000
Denmark	57,000	—
Poland	161,000	87,000

#### Western European Sugar Import requirements before and after World War II

In the year 1937-38 European imports totalled 3,897,024 metric tons, raw value, and exports 1,434,572 tons. These are large quantities even in relation to world totals but there are countries which import large quantities of sugar beside their own production in order to refine the imported sugar and to re-export it as refined sugar or finished goods. These countries are France, Belgium and Holland.

#### SOURCE OF IMPORT

Importing Countries	Supplying Countries
Norway	Great Britain, Cuba, Java and Czechoslovakia.
Portugal	Portuguese African Colonies.
Switzerland	Cuba, Great Britain, Holland, Czechoslovakia.
France	Brazil, Cuba, Holland.

The sugar imports of Great Britain reached 1,846,578 metric tons, raw value, in 1947-48 against 2,436,388 metric tons in 1937-38. Considering the recovery of the English economic situation, the increase of the rations, the removal from rationing of jam and sweets, and the increase of sugar distribution to the manufacturing industry it can be assured that the 1948-49 sugar consumption will be considerably higher than in 1947-48. 1948-49 sugar consumption is estimated at 2,150,000 metric tons, raw value versus 2,376,395 tons in 1937-38.

### **SUGAR REFINING COUNTRIES.**

*France* imported 347,223 metric tons, raw value in 1937-38. For 1947-48 it is somewhat difficult to analyse the import situation, as over a period of 3 months in mid 1948 some 200/250,000 tons entered the country, the greater part of which, remained however in entrepot up to August 31, and thus did not appear in the customs figures of imports for the year 1947-48. The Official French import statistics show imports of 106,738 metric tons, in 1947-48 against 142,190 tons during the same time last year.

Owing to the 1947-48 crop failure, *Belgium* imported 150,000 metric tons, raw value, in 1947-48 in 1937-38; 176,112 metric tons, were imported. As the 1948-49 production is 123,000 tons higher than last year and the refining trade will remain on a small scale, 1948-49 imports can be put at 30,000 tons. The imports of *Holland* reached 160,134 metric tons in 1937-38. In the campaign year 1947-48 195,742 metric tons, raw value were imported.

### **THE EUROPEAN SUGAR EXPORTING COUNTRIES BEFORE AND AFTER THE WORLD WAR II.**

In Europe one has to distinguish between direct and indirect exporting countries. Direct exporting countries are those which have a carry-over from their own home production for export purposes. Indirect exporting countries are those which import foreign beet or cane in order to refine and to re-export the improved goods.

Direct Exporters.—Czechoslovakia, Hungary, Poland, Denmark.

Indirect Exporters—France, Belgium, Holland and Great Britain.,

#### **Czechoslovakia.**

The trend of Czechoslovakian sugar exports has changed in comparison to the years before and after the war. According to the Commercial treaty with Russia a considerable part of production will be exported to the USSR. In 1937-38 large quantities of Sugar were exported to United Kingdom, Finland and Hamburg transit while those countries did not receive any sugar in 1947-48. During the war, sugar was exported to Germany, Hungary, Italy, Bulgaria and Yugoslavia. But now she can export to Greece, Norway and Switzerland in face of competition from Poland, U. K. and United States.

#### **Poland.**

After World War II the Polish sugar industry started to expand sugar exports. Thus 89,417 tons were exported in 1946-47 and 160,756 tons in 1947-48. The position of sugar industry has been very much strengthened by the annexation of the former German sugar factories in Silesia etc. USSR has become the main destination for sugar exports. In 1947-48 it mostly went to Middle and Far East countries.

#### **Denmark**

Trend of the Danish sugar exports will remain the same as in former years i.e. to Finland, Norway and Sweden.

### Hungary.

*Hungary* which was an importing country until recently has increased its production to 245,000 metric tons, raw value, and will thus be able to export 100,000 tons, the main destination will be the Middle East.

### Great Britain.

*Great Britain* is the most important of the European countries which import large quantities of foreign raw sugar to re-export the refined products. In 1947-48 the exports reached a new record of 590,590 tons, the main receivers were colonies of British Empire besides Norway, Italy, Egypt, Iran, Syria, Lebanon, Iraq and Switzerland.

### France.

Imported raw sugar after being refined at home is exported to French North African colonies. i.e. Tunis, Algeria, and Morocco. During the war, exports were negligible, but since then export figure is again going up.

### Holland.

In contrast to other European exporting countries Holland has no fixed markets. Before World War II sugar was exported to Belgium, U. K. Iran, Iraq and Uruguay. In 1947-48 Germany, France, Italy and North African colonies received sugar from Holland.

### Belgium.

*Belgium* has resumed only a small scale sugar export. It may endeavour to increase her exports in 1948-49.

## EUROPEAN SUGAR CONSUMPTION 1948-49

TABLE NO. 28

Country	Estimated 1948-49	(In Metric Tons—raw value)		
		1947-48	1946-47	1937-38
Germany	1,430,000	1,105,769	784,799	1,809,782
Czechoslovakia	335,000	307,909	396,649	411,348
France	1,000,000	761,087	763,318	1,041,992
Belgium	270,000	275,470	234,831	266,600
Holland	375,000	326,207	304,188	350,269
Denmark	210,000	162,566	158,366	209,014
Sweden	300,000	291,141	294,249	303,884
Norway	100,000	96,266	85,397	97,315
Poland	475,000	389,616	328,641	452,282
Spain	275,000	161,537	128,931	250,000
Portugal	90,000	88,561	66,809	69,784
Greece	75,000	65,000	56,595	87,084
Switzerland	180,000	178,379	180,830	177,104
Great Britain	2,200,000	2,026,828	1,917,823	2,376,395
Ireland	120,000	109,660	82,650	121,026
Finland	100,000	94,177	53,983	116,406
Turkey	155,000	156,284	107,319	107,401
Other Countries	904,000	710,485	563,471	955,181
Europe excluding USSR	8,594,000	7,306,962	6,508,849	9,202,867

(Source:— F.O.Licht)

## HEAVY INCREASE IN EUROPEAN SUGAR CONSUMPTION 1948-49

As a consequence of the outbreak of war, sugar consumption of numerous European countries decreased heavily from 1939-40 to 1945-46. With the stabilisation of conditions and restoration of sugar production, however European sugar consumption increased again from the year 1946-47 onwards. Total European sugar consumption, without Russia, reached 7,306,962 metric tons, raw value, in the year 1947-48 as against 6,508,849 tons during 1946-47 and 9,202,867 tons in 1937-38. This means an increase of 12.3 per cent over 1946-47 and a decline of 20.6 per cent in comparison with the year 1937-38.

Thus it becomes clear that total European sugar consumption was still far from the peace time level in 1947-48. Conditions were however very different within the individual countries.

The 1946-47 *German* sugar consumption had decreased to less than a half of the amount of the campaign year 1937-38. The changes of frontiers are of little interest in the case of consumption statistics as almost the whole nation, with its consumers, has been pressed within those 4 zones. There are 65.9 million persons living there, i.e. only a bit less than the 1937-38 population within the frontiers of the Reich. Sugar consumption rose considerably in 1947-48 thanks to imports of Cuban raw sugar. Nevertheless, there remains a decline of 704,013 tons or 38.9 per cent compared with the campaign year 1937-38. Thanks to the good yield of last autumn, a further considerable increase of sugar consumption may be expected for 1948-49. We think that total 1948-49 consumption of all zones of occupation will reach about 1,430,000 tons.

The *Czechoslovakian* 1947-48 sugar consumption of 307,909 tons does not reach that of the campaign year 1937-38. In comparison to the campaign year 1946-47 there is a reduction in consumption of 88,740 tons or 29.9 per cent. This reduction is explained by the bad beet crop of that year as well as the wish to maintain sugar exports. Czechoslovakian sugar consumption should reach about 335,000 metric tons, raw value.

The *French* 1947-48 sugar consumption was considerably below that of pre-war years. 761,087 tons were consumed in the campaign year 1947-48 against 1,041,992 in the campaign year 1937-38 which means reduction of 280,905 tons or 27.0 per cent. However, when French sugar production was greatly increased in 1948-49 and rations were increased, French sugar consumption was stimulated. Consumption for the campaign year 1948-49 may be estimated at about 1 million metric tons, raw value.

The 1947-48 *Belgian* sugar consumption surpassed that of the campaign year 1937-38. Because of the bad beet yield, it was necessary to import 150,141 tons in order to meet that high demand. We are of the opinion that Belgian consumption has reached a state of saturation at 275,470 tons. Belgian consumption in 1948-49 will not surpass 270,000 tons.

*Dutch* sugar consumption showed a decided rising tendency during recent years. However, during the 1947-48 campaign year it did not reach 1937-38 consumption. Another considerable increase may be expected for the campaign year 1948-49. We estimate consumption at 375,000 metric tons, raw value.

In *Denmark*, due to the rationing system, 1947-48 sugar consumption of 162,566 tons was still considerably below that of the campaign year 1937-38 which amounted to 209,014 tons. During the last quarter of the year 1948, 52,287 tons were consumed. We believe we are correct in assuming that Denmark's total 1948-49 consumption will reach the pre-war standard of about 210,000 tons.

*Sweden* consumed 291,141 metric tons, raw value, in 1947-48 against 303,884 tons during the campaign year 1937-38. We estimate consumption for the campaign year 1948-49 at about 300,000 metric tons, raw value.

*Norwegian* sugar consumption amounted to 96,266 metric tons, raw value, in 1947-48 against 97,315 tons during the campaign year 1937-38. Thus, Norway reached its pre-war level of sugar consumption. Consumption in 1948-49 is estimated at 100,000 metric tons, raw value.

*Polish* sugar consumption showed an important increase during recent years. It reached only 210,000 tons in 1945-46, but rose to 328,641 tons in 1946-47 and 389,616 tons in 1947-48. Total consumption for the campaign year 1948-49 may be estimated, at least, at 475,000 metric tons, raw value.

*Spanish* sugar consumption amounted to 161,557 tons in 1947/48 against 250,000 tons in the campaign year 1937/38. As present Spanish sugar production reached about 285,000 metric tons, raw value, we estimate 1948/49 consumption at 275,000 tons.

In *Portugal* 1947-48 consumption of 88,561 tons considerably surpassed that of the campaign year 1937/38 of 69,784 tons. 1948/49 consumption will reach about 90,000 tons.

In *Greece*, 1947-48 consumption, amounting to 65,000 metric tons, raw value, was still considerably below that of the campaign year 1937-38 of 87,084 tons. Taking into consideration the continuing consolidation of the world sugar economy, Greek consumption in 1948-49 is estimated at about 75,000 tons.

In *Switzerland*, 1947-48 sugar consumption amounted to about 178,379 metric tons, raw value against 180,830 tons in 1946-47 and 177,104 tons in the campaign year 1937-38. This means that sugar consumption has already reached peace-time levels for two years. A total of 180,000 metric tons, raw value, may be expected for 1948-49 consumption.

Due to the rationing system, *English* sugar consumption shows only a small increase. 2,026,828 metric tons, raw value, were consumed during the campaign year September/August 1947-48 against 1,917,823 tons in 1946-47 and 2,376,395 tons in 1937-38. As sweets have become free of rationing, in the meantime, and considerable extra rations will be distributed for preserving purposes, it is assumed that about 2,200,000 metric tons, raw value, will be consumed in the campaign year 1948-49. As in Germany, however, this means no normal saturation for England. With a free market system, consumption would surely reach 2,600,000 to 2,700,000 metric tons, raw value.

In 1947/48 *Irish* consumption of 109,660 tons remained below that of the year 1937/38 when 121,026 tons were consumed. It is assumed that the campaign year 1948/49 will show a further step towards peace-time levels, with consumption of 120,000 tons.

In *Finland*, conditions are similar to those of Eire. Sugar consumption of 94,177 tons in 1947-48 was also below that of the campaign year 1937-38, when 116,406 tons were consumed. 1948-49 sugar consumption is estimated at about 100,000 metric tons, raw value.

The heavy increase in consumption in *Turkey* caused a lot of problems for the authorities, forcing them to import large quantities of sugar. With 156,284 metric tons, raw value, 1948 sugar consumption ranged considerably above that of the campaign year 1937-38, which amounted to 107,401 tons. The government took measures to stop a further increase in sugar consumption. 1948-49 consumption will also be about 155,000 tons.

It is estimated that 1947-48 sugar consumption of the "other European countries" including Austria, Iceland, Italy, Albania, Yugoslavia, Roumania, Bulgaria, Malta, Gibraltar and Cyprus will be 710,485 tons.

According to the above estimates, total European consumption will reach 8,594,000 metric tons, raw value, in the campaign year 1948-49 against 7,306,962 tons last year. This would mean an increase of 7,287,038 tons 17.6 per cent. In comparison to the campaign year 1937/38 there is a decrease of 608,867 tons or 6.6 per cent. This is due especially to the fact that sugar consumption in Germany, Austria and England has not yet returned to normal. To examine the whole situation, it may be interesting to point out that European sugar production, without Russia, reached 6,883,520 metric tons, raw value, in 1948-49 against 6,360,615 metric tons, in the campaign year 1937/38

### PER CAPITA CONSUMPTION IN EUROPE.

#### Europe.

The following figures of annual consumption per head expressed in terms of refined sugar, for the years 1947-48, and 1946-47 with comparison of the average of the pre-war years 1934-38 are given below from a survey issued by F. A. O. of the United Nations

TABLE NO. 29

Refined Sugar	1947-48	Kilogram per capita per year 1946-47	1934-38
Austria	8.8	6.3	24.0
Belgium	25.8	25.3	27.8
Bulgaria	4.6	4.3	2.5
Czechoslovakia	17.4	22.4	23.6
Denmark	38.1	38.0	50.5
Finland	15.0	10.5	28.2
France	15.3	14.6	23.9
Germany (pre-war)	—	—	24.0
Germany Bizone	15.7	8.6	—
Germany French Zone	5.2	9.6	—
Germany Soviet Zone	14.4	16.2	—
Greece	9.3	8.0	10.2
Hungary	9.7	7.1	10.2
Iceland	—	38.5	45.7
Ireland	27.9	24.2	37.7
Italy	6.5	6.2	7.1
Luxemburg	26.7	25.3	33.5
Holland	25.9	24.0	26.7
Norway	25.3	21.6	30.3
Poland	9.6	—	8.5
Portugal	8.1	8.3	10.1
Roumania	4.8	2.0	5.2
Spain	4.8	6.0	11.6(*)
Sweden	37.0	39.8	44.1
Switzerland	35.8	35.0	38.1
United Kingdom	35.3	37.1	49.1
Yugoslavia	3.7	3.0	4.5
Average	15.5	14.9	21.3

(\*) 1930-34 Note: —1 English Pound=0.45359 Kilograms.

## UNITED KINGDOM

### Proposed Nationalisation of Sugar Industry.

Nationalisation of the sugar refining industry in Great Britain is proposed in the Labour Party's manifesto on what it will do if returned to power at the 1950 general election. It is difficult to see what benefit the public will get from such action. Writes the Public Ledger.—The British Sugar Corporation is already a Government sponsored monopoly so far as the home grown sugar is concerned and pays the farmer for his beet whatever price is prescribed by the Government and the tax-payer meets the difference between the cost and the sale price. E. D. and F. Man writes that it is incomprehensible that nationalisation of this industry should be seriously contemplated by sober-minded people. The President of a large English refining concern hoped that he was confident that reason will prevail and the nationalisation will not be done. Exports of refined sugar are helping to offset the dollar deficit and there was a very competitive export trade in refined. A strongly worded protest has also been published from the Jamaican Labour leader against this proposal of nationalisation, and the President of Tate and Lyle Ltd. has supported the same.

### EMPIRE SUGAR GUARANTEE

A decision has been taken by the United Kingdom Government on the difficult question of an agreement to come into force when their guaranteed purchase of Empire sugars terminates at the end of 1952. On August 10, 1949 it was announced that long term assurances of markets for agreed tonnages of sugar would be given to Commonwealth producers at reasonably remunerative prices. No details are available, since these will have to be worked out in consultation with all interested parties.

"A series of discussions regarding the future sugar policy of U. K. has taken place in London, first with the representatives of the British West Indies Sugar Association subsequently with representatives of Jamaica. U. K. Govt. assured the delegation and that they recognised that the prosperity of the sugar industry is vital to the maintenance of an adequate standard of living in sugar producing colonies such as the British West Indies. They gave the assurances as stated in previous para. Before these arrangements can be completed, other Commonwealth producers will have to be consulted. The two delegations insisted that any assurances which might be given to meet the needs of the situations must cover a period of at least ten years.

### COMMONWEALTH SUGAR AGREEMENTS

When United Kingdom Government announced its ability to guarantee for five years a market for surplus sugars of Commonwealth producers, there were those who expressed doubt of the success of the project as they could not foresee the force and direction of the ebbs and flows and cross-currents of the world sugar trade. The hard realism of economic disequilibrium leads to experiments and so Britain was confident that she will be assisted by the friendly co-operation of the Empire connections to stave off the blows that threaten to hamper her rehabilitation. On the higher plane is the dominant question on the possibility of effecting establishing a series of long term contracts within the Commonwealth, which will mean, in effect, the creation of a separate marketing scheme and its relation to the charter of the International Trade Organisation.

The undertaking given by the United Kingdom Government to Dominions and Colonies to buy all the sugar they can export during the next four years was given because of her acute dollar shortage; and unless it became possible for dollar countries to negotiate sugar contracts with Britain in sterling, she must curtail her purchases from them and encourage Commonwealth trade to the limit. In existing financial



conditions, it was perhaps imperative and although Cuba, which is the leader in the desire for a new Agreement to be urgently enacted has conceded that she will not expect any nation to become party to a new Agreement by adversely affecting its national economic interest.

### **A COMMONWEALTH SUGAR POLICY.**

The "Daily Mirror" of March 5, 1949 on its front page indicated the direction, that the Labour Party is thinking on the lines of a Commonwealth sugar policy and wished to encourage Commonwealth cane growers and manufacturers to produce sufficient sugar to make the Commonwealth self-supporting in sugar. The article suggested that a continuance of bulk purchase at fixed price was being considered with the Colonial Development Corporation undertaking the purchasing arrangements and development of new production. The home beet sugar industry would be linked with overseas sugar production and the Govt. would undertake processing and distribution as well as refining in the United Kingdom. It also suggested that that the plan should embrace stimulation of export trade in biscuits, confectionary etc. with the aim of making Great Britain the largest exporter of sugar products as well as one of the two largest importers of sugar. How far this article may be taken as a reliable forecast of the shape of things to come will depend on the outcome of wide-ranging discussions going on with West Indies delegation and with others. The Govt. on the other hand be aware of the existence of pieces of orange peel lying in the path.

### **THE INTERNATIONAL SUGAR AGREEMENT AND U. K.**

By the International Sugar Agreement, the U. K. has accepted the obligation not to increase its Home Beet Sugar Production above 618,000 tons and has strictly adhered to this limitation even when an extension of the Home Production was highly desirable. The U. K. Government has however failed to receive during the war and the post-war years from other parts of the British Empire the usual supply of raw sugar on export quotas provided for in the Agreement for the British Colonial Empire upto the quantity of 965,254 tons, for the Commonwealth of Australia upto 406,423 tons and for the Union of South Africa upto 209,000 tons. Efforts are made to improve on this situation and to secure sufficient sugar quantities through long term contracts from all parts of the Empire, where an expansion of the sugar industry for the benefit of the Home country is planned and partly even realized. It is quite comprehensible that the U. K. desires to have more stability in its sugar imports before entering into obligations under a new Agreement and yet it would be surely in the common interest of all parties if such a policy were co-ordinated with the anticipated principles of the Agreement.

#### **Production**

The outturn of nearly 560,000 tons, in terms of white sugar, during 1948-49 was the highest yet achieved by the Sugar Corporation, and exceeded by 130,000 tons the results of the previous year. 174,000 tons of molasses were produced. The crop was grown by more than 42,000 farmers on rather less than 400,000 acres, the average contracted being 9.43 acres, the average yield of 10.84 tons per acre and the average sugar content 16.33 per cent. Payments to farmers for beets totalled £ 23,800,000.

#### **Sugar beet Price increased**

The beet growers are to get a higher price in 1949 and 1950, the basic price of 108 sh. 4d. having recently been increased by 1sh. 9d. to 105 sh. 1d. for 1949 and by 10 sh. 4d. to 105 sh. 4d. per ton for 1950.

## Change in Sugar Prices

While the prices of refined sugar for home consumption remains unchanged, a special price for sugar used in the manufacture of goods for export has been announced for the period from May 22, 1949 and August 13, 1949 namely 54 sh. 6d. per cwt for granulated in 2 cwt. bags, net, ex-refinery. There will be a rebate of 4½d per cwt. on lots of 10 tons to under 100 tons, and 6d. for 100 tons, and 6d. for 100 tons and upwards.

## U. K. Beet Payments

The difference between the cost of buying and processing beet and the income from the sale of products was made good by a deficiency payment which last year amounted to £ 3.44 million. All Commonwealth sugar, including home produced sugar pays a lower rate of duty than that levied on foreign sugar. It was calculated last year the difference between the excise duty on home-grown beet sugar and the charge at the full rate levied on foreign sugar was £ 2.5 million.

## Consumption Requirements.

In the course of a debate in the House of Commons in March 1949, the Government gave the following figures in regard to 1949 sugar requirements: —

						Refined
Availability	1949 requirements	..	..	..	..	2,035,000 tons
	U.K. Beet	..	..	..	..	544,000 "
	Commonwealth Sugar	..	..	..	..	1,150,000 "
	Dollar Sugar Purchase	..	..	..	..	90,000 "
	Purchases against diversion to Canada	..	..	..	..	279,000 "
						2063,000 tons

Pre-war consumption was given as 2,180,000 tons refined value. The estimated annual demand for sugar, if rationing were removed would total 2,325,000 tons while an additional 200,000 tons would be needed for initial re-building of stocks by domestic and industrial users. Thus 2,525,000 tons would be required. The Govt. spokesmen said that whilst the Govt. felt at the moment that they are not in a position to spend their very scarce dollars on extra sugar.

The Minister of Food in reply to a question told that in the year ended 31st March 1949, total sugar consumption in the U. K. was about 1,900,000 tons. Of this 25.8 % was refined by Messrs. Tate and Lyle Ltd. 23.4 per cent was processed by the British Sugar Corporation Ltd. and 13.1 per cent by other refineries. Rest was not refined.

## Allocation to Manufacturers.

The total quantity of refined sugar allocated for manufacturing purposes were 825,200 tons in 1948 and 828,100 tons in 1947, the chief items being:—

TABLE NO. 30.

	1948	1947
Chocolate and Sugar Confectionery	170,000	182,000
Preserves	190,000	190,100
Biscuits, Cakes etc.	143,500	153,100
Syrup and Treacle	86,000	80,300
Brewing	49,900	59,200
Soft Drinks	32,300	27,200
Condensed Milk	17,700	15,900

Since the control on confectionary was lifted in April 1949, the demand was so great that stocks were promptly exhausted and it was announced that confectionary rationing abolished on 24th April was to be reimposed at the level of 4 oz. per week from 14th August, 1949.

### U. K. Ration Reduction.

The Chancellor of the Exchequer announced on the 14th July, 1949 in the House of Commons that U. K. Sugar ration will be reduced from August 14th from 10 oz. to 8 oz. per week and the on same day sweets and chocolate rationing (which was de-rationed on the 24th April 1949) will be reinstated at 4 oz. per head. Allocations to other manufacturing users are not to be affected.

According to "Public Ledger" Sir Stafford Cripps declared that the reduction in the ordinary ration would save 150,000 tons of sugar costing a 14 million Dollars and the reimposition of confectionery rationing would save further 30,000 tons both in the period upto the end of the year at 30th June, 1950.

### U. K. Sugar Duties cut.

In the Budget of April 7, 1949 it was announced that the custom and excise taxes on sugar, molasses and glucose were to be reduced. Sugar duties were reduced by 1½d. per lb. with appropriate reduction on molasses and glucose. Prices both to the public and to the manufacturers would remain unaltered and special arrangements was to be made to ensure that exporters did not suffer from the reduced rate of customs drawback. The result would be to reduce the subsidy required to maintain the existing prices by £22 million in respect of sugar.

Details of the duties are given below. The new rates came into force on April 6, 1949.

### Customs.

TABLE NO. 31.

SUGAR	Full		PREFERENTIAL			
	(Per s.	cwt.) d.	General (Per s. d.		Certificated (Per s. d.	
Exceeding 99° pol .....	11	8	5	10	2	4.7
„ 98° but n.e. 99° .....	11	8	4	9.2	1	6.3
„ 97° „ 98° .....	8	7.0	4	7.7	1	5.8
„ 96° „ 97° .....	8	4.3	4	6.3	1	5.3
„ 95° „ 96° .....	8	1.6	4	4.8	1	4.8
and proportionately down to not exceeding 76° .....	4	6.0	2	5½	0	9.6
<b>MOLASSES:—</b>						
Containing 70% or more of sweetening matter .....	7	5	3	8½	—	—
Cont. less than 70% but more than 50 % .....	5	4	2	8	—	—
Cont. 50% or less .....	2	7	1	3½	—	—
<b>GLUCOSE:—</b>						
Solid .....	7	5	3	8½	—	—
Liquid .....	5	4	2	8	—	—

## EXCISE.

SUGAR		Existing duties (per s.                      cwt.) d.		Proposed duties. (per s.                      cwt.) d.	
Exceeding 99°	of .....	16	3.0	4	7.0
" 98°	but not exc. 99°	14	7.1	3	7.1
" 97°	" 98°	14	2.8	3	6.0
" 56°	" 97°	13	10.3	3	4.9
" 95°	" 96°	13	5.9	3	3.8
and proportionately down to:					
not exceeding 76		7	5.1	1	10.2
MOLASSES:—					
Cont. 70% or more .....		10	3½	2	11
GLUCOSE:—					
Solid .....		10	3½	2	11

**Molasses Prices Fall.**

Prices for molasses have during the period June—August 1949 suffered a very severe and rapid decline. For some time it had been evident that the abnormally high prices reached during the post-war period would sooner or later have to be adjusted to the gradually changing conditions. Nevertheless the decline was steeper, more rapid, and came sooner than most people expected. The fall has been welcomed by fermentation distillers, especially in the U.S.A., where the production of synthetic alcohol since the war has made great strides.

**U. K. Plan for Modernisation.**

The British Sugar Corporation's plan to spend £ 5,000,000 on improving and modernising the sugar factories over a period of ten years has made further progress.

**Statistical Summary—Great Britain**

	Metric tons—raw value September–August		1946-47
	1948-49	1947-48	
Initial Stocks 1. 9.	371,348	623,367	422,096
Imports	2,075,929	1,803,781	1,763,239
Total	2,447,277	2,427,148	2,185,335
Exports	513,354	590,543	226,468
Closing Stocks 31.8.	349,352	371,348	623,367
Consumption	1,584,571	1,465,257	1,335,500
Calculated			
Consumption Official	1,542,048	1,496,561	1,310,583

**USSR****Process of Rehabilitation**

The USSR is a country behind the Iron Curtain although she is the most important sugar country in Europe. The Centre of the Russian sugar production is always the Ukraine. The sugar industry of the Ukraine was completely destroyed by the military actions during World War II, but has been rebuilt, to a large extent during the last four years. 22 new factories have been erected and the post-war five-year plan has been put into action. At the end of the five-year plan, the sugar industry is not only to restore the pre-war level of production but to surpass it both as regards quantity and quality. The capital investments of the sugar industry during 1946 and 1947 were five and a half times larger than in the pre-war year of 1940.

The increase in the capacity of active, rehabilitated and newly constructed plants is going on hand in hand with the introduction of the most up-to-date types of technological and power equipment including the mechanisation of loading and unloading of beets, fuel and limestone.

### **Review of the year 1948-49.**

According to the information of "Pravda" 197 sugar factories were in operation during the campaign year 1948-49 against 183 factories during 1947-48. The number of factories are working as before World War II, but most of them are modernised and partly enlarged. The production capacity of all factories may be between 2,500,000 and 30,00,000 metric tons, raw value.

### **Imports:—**

During 1948-49, the sugar production amounted to 1,980,000 tons as against, 1,620,000 tons in 1947-48. During recent years, the domestic sugar production of the USSR was not considered to be sufficient to meet the Russian requirements. Therefore the Soviet Union endeavoured to import larger quantities of sugar from foreign countries. From the Soviet Zone of Germany, several lacs tons of sugar have been imported during the recent years after World War II. According to commercial treaty with Czechoslovakia and Poland in 1948, the former will deliver 15 per cent of her export carry-over to the USSR and similarly the latter will deliver larger quantities. It was more than a hundred thousand tons in each case during 1948-49.

Total imports of USSR during 1947-48 and 1946-47 may have touched 265,000 tons and 350,000 tons.

### **Exports:—**

USSR exported 150,000 tons of sugar in 1948-49 and 100,000 tons in 1947-48 to the Middle East. The rising sugar production would make it possible to export larger quantities to the world free market.

### **Consumption:—**

According to "Pravda", Sugar production during 1949-50 will reach 2,780,000 tons. If the whole sugar production were consumed, that would mean a per capita consumption of 14.4 kilograms against 14.1 kilograms in 1937-38. If imports are included, the exports to world free market will have to be accounted for the USSR will use the raising production for improving the sugar supply of her population and increasing exports to the Far and Middle East.

## **GERMANY**

When Germany collapsed in 1945, the structure of the German sugar industry was fundamentally changed. Large areas which had been parts of Germany became unimportant. 30.6 per cent of the production of 2,633,681 tons of the campaign year 1942-43 had been produced in districts which now are under Polish administration; 4.7 per cent had been produced in Austria and 2.6 per cent in the Sudets. On the whole, this meant a loss of 998,627 tons or 37.9 per cent of 1942-43 production.

During the four zones of occupation, the 1942-43 production may be divided as below.

---

British Zone	..	..	..	17.3%
American & French Zones	..	..	..	6.6%
Russian Zone	..	..	..	38.2%

Production of the four zones of occupation reached 65.3 per cent. As the individual zones had been completely isolated economically, at first the development of the sugar industry was completely different as a consequence of the disproportionate production in the different zones.

TABLE NO. 32.

Production, Imports and Exports (Metric tons—raw value)

Year	Production	Imports	Exports
1939-40	2,620,200	47,842	31,794
1940-41	2,716,300	93,696	45,537
1941-42	2,361,200	147,185	63,068
1942-43	2,661,100	177,869	39,896
1943-44	2,397,400	92,048	66,116
1944-45	2,190,205	—	—
1945-46	780,522	—	—
1946-47	998 141	—	—
1947-48	781,672	659,900(*)	—

(\*) From Cuba, U K. and France.

In the four Zones of occupation, the number of working factories during 1948-49 was as follows.

British Zone	..	..	..	..	69
U.S. Zone	..	..	..	..	8
French Zone	..	..	..	..	2
Soviet Zone	..	..	..	..	76
Total	..	..	..	..	155

#### Soviet Zone :—

Production in Eastern Germany during the 1948-49 campaign amounted to 680,000 tons as against 416,667 tons in 1947-48 and 533,333 tons in 1946-47. With the exception of the campaign year 1947-48 the Soviet Zone would have been able to meet the peace level for the want of the population there.

Things have, however, turned out quite otherwise. Although sugar rations have been higher than in the Western Zones, yet they are considerably below the peace-time consumption per capita. The greatest part was exported to the USSR as reparations. The amount of Sugar rations or exports will depend on Soviet authorities.

#### British Zone :—

While the Soviet Zone of Germany represents a real surplus area, the sugar industry of the three Western Zones is not able to meet home consumption, by its own production. Among them the best condition can be found in the British Zone. In 1948-49 campaign 463,772 tons of sugar was produced by 62 factories against 282,672 tons in 1947-48. But 588,800 tons (plus 50,000 tons for Berlin) sugar would be needed for meeting pre-war per capita of 26.4 kilograms.

#### American Zone :—

During 1948-49, 111,483 tons was produced against 63,380 tons in 1947-48. The production is one-fourth of the normal supply only.

#### French Zone :—

During 1948-49, 48,289 tons of sugar was produced but the actual need of the population is 156,800 tons for peace-time, i.e. the production is about one-third of the requirements.

**Imports :—**

During 1947-48, total imports in Allied Zones amounted to 642,906 tons which is double of the home production. During 1948-49 from October 1948 to June 1949, about 150,000 tons was imported. In the Campaign year 1949-50, too, Western Germany will considerably depend upon imports from abroad. In the Marshall Plan System it is planned to increase Western Germany's sugar production to 800,000 tons. From the Soviet Zone some 200,000 to 250,000 tons can be exported to Western Zone in addition to additional reserve—capacity of 220,000 tons. Germany can become self-sufficient in sugar if both parts co-operate.

**Miscellaneous :—**

- (1) A reduction in Excise-duty has been provided by a Bill brought in by the Economic Council. The duty will be reduced by DM 9.5. per 100 kilogrammes. The Present Duty is DM 40—the difference will be used in favour of beet-growing and to equalise freights.
- (2) The beet price shall be fixed at DM 4.75 to 5.00 per 100 kilogrammes as promised to the growers.
- (3) From October 1949, rationing system for sweets has been abolished.
- (4) According to commercial treaty, Eastern Germany will have to deliver 40,000 tons, refined to Western Germany during 1950.
- (5) According to the Ministry of Food, 599,000 tons of sugar will be imported during current economic year i.e. 1949-50.

**Poland—**

Poland, one of the oldest sugar producing countries in Europe has already gone through major phases of forced nationalisation. Production, imports, exports, consumption and stocks for the last four years are given below.

**TABLE NO. 33.**

Year	Sept-August Production	Recovery	Exports	(Metric tons)	
				Consumption	Stocks
1938-39	545,844	17.41	49,462	453,053	143,927
1945-46	195,179	15.09	—	190,329	24,732
1946-47	426,195	14.64	89,417	329,286	36,668
1947-48	550,186	15.77	160,756	389,277	36,427
1948-49	693,751	15.58	250,000	417,006	—
1949-50*	825,000	—	375,000	459,000	—

(\*) Estimated

During 1948-49, 77 sugar factories were in operation and sugar produced was 693,751 metric tons raw value against 550,131 in 1947-48. The 1949-50 production is estimated at 825,000 tons. The rebuilding of the Polish sugar industry thus is in full swing. A further increase of the Polish sugar production is planned. In 1948-49, Polish sugar consumption amounted to 417,006 tons against 389,616 tons in 1947-48. Polish exports can be estimated at 250,000 tons in 1948-49 against 162,367 tons in 1947-48. The main countries of destination were the USSR, Finland, Greece, Italy and Western Germany.

Taking into consideration a sugar production of 825,000 tons and a sugar consumption of 450,000 tons in 1949-50, Poland would have an export surplus of 375,000 tons. 0,000 tons of this quantity will be delivered to Western Germany.

The USSR will receive large quantities of sugar according to the commercial treaty. Finland and Norway will also get larger quantities.

#### **Treaty with Pakistan :—**

According to a commercial treaty with Pakistan, Poland shall deliver 3000 tons of Sugar in exchange of 2000 tons of jute.

### **CZECHOSLOVAKIA.**

#### **The Sugar Industry under the Five-year Plan 1949-53.**

The Plan prescribes for 1953, a production of 790,000 metric tons refined sugar and 183,000 tons of molasses, sugar beet crop to be fixed at 5,500,000 metric tons and the distribution of sugar to be raised by 206,000 tons above that of 1948. The increases will be 17 per cent. for refined sugar, 16 per cent. for molasses and 17 per cent. for the value of all production of the Sugar industry over that of 1948. The productivity of labour is also to be increased by 35 per cent.

#### **Review of the Progress during 1948-49.**

102 factories were in operation in 1948-49. The sugar production reached 632,310 tons against 351,301 tons and 590,889 tons respectively during the two previous years. The yet rationed sugar consumption amounted to 360,637 tons in 1948-49, 307,509 tons in 1947-48 and 396,649 tons in 1946-47. The sugar exports will probably reach 230,000 tons in 1948-49 against 97,800 tons in 1947-48 and 193,948 tons in 1946-47. The main countries of destination were the USSR., Switzerland, Italy, Norway, Greece and Austria.

According to the latest information, a 1949-50 sugar production of about 670,000 tons is expected. Until now, nothing was heard of a governmental proposal to abolish the rationing system. The 1949-50 consumption then will be in the neighbourhood of 375,000 tons, thus enabling the country to export an amount of 300,000 tons.

#### **Stocks :—**

At the end of 1948-49, the stock on 1st September 1949 was 51,218 tons as against 24,810 tons last year.

### **SPAIN**

#### **Campaign results—July-June**

**TABLE NO. 34.**

Ca mpa ign Year	Working Beet factories	Working Cane factories	Beet Area	Cane Area	Beet Sugar	Cane Sugar
			(Hectaras)			
1945-46	38	11	40,000	1,900	108,868	10,906
1946-47	39	13	62,000	2,400	176,683	13,522
1947-48	40	13	48,000	2,900	131,488	18,763
1948-49	42	13	—	—	—	—



**Yearly Statistics - (Metric tons, raw value) July-June**

	1948-49	1947-48	1946-47	1945-46
Initial Stock	59,761	76,247	12,955	25,349
Production*	286,656	150,251	190,205	177,908
Imports	13,423	8,504	11,861	22,780
Total	359,840	235,002	215,021	226,037
Exports	13,515	13,684	9,843	12,388
Deliveries,	256,092	175,241	138,774	187,686
Final Stocks 30-6	103,748	59,761	76,247	38,351
Consumption	242,577	161,557	128,931	175,298

\*Beet + Cane Sugar

As to the 1949-50, beet-sugar production is estimated at 195,000 tons from a harvest of 1,540,000 tons. The cane sugar crop is estimated to yield 21,000 metric tons, raw value.

**Sugar Price :—**

The price for one kilogram of granulated is 5.70 Pesetas ex-factory including 0.75 Pesetas taxes. The retail price for kilogram granulated sugar is 7.00 Pesetas.

**FRANCE.**

In pre-war period, France held the fourth place among beet sugar producing countries of the world. Her production ranged after USSR, Germany and the United States. The last World War had severely affected the French sugar production and the reorganisation of the sugar cultivation started only in 1946-47.

**Production, Trade and Consumption.—Metric tons****TABLE NO. 35.**

Period	Production	Imports	Exports	Consumption	Stocks
1938-39	852,232	474,838	267,441	1,137,236	59,898
1944-45	332,218	59,232	5,569	506,570	47,130
1945-46	461,111	285,033	5,800	650,000	139,940
1946-47	765,218	142,190	92,918	734,568	191,111
1947-48	664,420	106,738	194,277	747,453	7,206
1948-49 (*)	960,156	399,086	203,886	962,816	199,748

(\*) Figures incomplete

As present, the French Sugar industry is taking again her place in the whole of the National Economy. Sugar is still a rationed commodity and exports are increasing very slowly.

**Results of Field Tests :—**

	Sugar content
1930-39 (10 years)	16.52%
1947	18.04%
1948	16.06%
1949	15.66%

**Taxes :—**

The *Custom Duty* on sugar was suspended during the war and has not been reimposed. The *Excise Duty* on home produced sugar was abolished on 1st January 1946. A Production Tax was however introduced on 1st November, 1943, the present rate being 12.50 per cent of the internal sugar value. A transaction tax at the rate of 1 per cent is likewise levied. These two taxes levied on imported as well as home-grown sugar. On imported sugar a tax of 13 per cent on the value of the packing is levied.

**Cost of Production of Sugar.**

The production expenses, calculated on the basis of prices of sugar when leaving the factory, during the year 1947-48 are divided as follows :—

Raw Material .. .. .	63%
Salaries and wages .. .. .	16%
Fuels .. .. .	6%
Repairs and Replacements .. .. .	4%
Packing .. .. .	1%
Insurance, Amortizement, agents etc... .. .	10%
	<hr/> 100%

**Rationing :—**

The question of the decontrol of sugar is receiving a good deal of publicity in the Press and according to a declaration of the Ministry of Economic Affairs, the Sugar rationing system will be abolished in near future. The ration may be increased to 1500 gr. per month per person. In 1948, French consumption of sugar was 18.5 kg. per capita.

**Prospects for 1949-50.**

A beet acreage of 312,000 hectares and beet yield of 24 to 27 tons per hectare, during 1949-50 will give a sugar production of 1,000,000 tons, refined. Taking into consideration the production carry over of 175,000 tons France will have at her disposition 1,175,000 tons plus 50,000 tons to be imported from abroad. Before World War II, the French consumption was 1 Million tons refined. The following figures will give a picture for the French Empire.

	Production (1000 tons)	Consumption (1000 tons)
France	1,000	1,000
Colonies	227	375
Imports	50	—
	<hr/> 1,277	<hr/> 1,375
Deficit	98	—
	<hr/> 1,375	<hr/> 1,375

**Sugar Premiums fixed :—**

The 1949-50 sugar premiums for the French beet growers have been fixed as follows.

	1.5 kg. per ton
upto 100 tons	1
101-300 "	" " "
301-500 "	0.75 " " "
Above 500 "	0.5 " " "

Each beet grower is obliged to distribute sugar from those premiums to his permanent workers at fixed rates.

### **France Dissatisfied with International Sugar Agreement :—**

France can sign a new agreement provided existing international agreements are taken into account but she desires to tighten up as much possible with her oversea territories forming the French Union. The accusation of France by International opinion is unjustified. She says that it is not possible for her to impose quotas or limitations on a product, which can be produced on her soil while she is short of foreign exchange necessary to import raw materials. She is ready to sign the agreement provided her rights and her interests are recognised, for if sacrifices are to be made, it is upto the countries which have enriched themselves during the War and not to those like her which has suffered.

## CHAPTER X.

### INDIAN SUGAR SITUATION

#### FISCAL

#### A--PROTECTION.

##### Short History:—

(a) *Pre-Protection Period* ((1925-32).) The Sugar industry has enjoyed the benefit of high protection for a period of about 18 years from April 1932. Imported sugar had been subject to a high revenue duty even before the sugar industry became a protected industry in 1932. The rate of revenue duty before 1925 was as follows—

1894-95 to 1915-16	5% ad valorem
1916 to 1921	10% " "
1921-22	15% " "
1922-25	25% " "

In June 1925, the *ad valorem* duty was converted into a specific one and the rate was raised to Rs. 4-8 per cwt. This remained in force for nearly 5 years, the estimated c.i.f. price of Java sugar was about Rs. 8-8 per cwt. Thus the specific duty worked out to 50 per cent. In March 1930, the duty was raised to Rs. 6-0-0 per cwt. The estimated c.i.f. price of Java sugar at that time was Rs. 5-0-0 per cwt. The duty thus works out to 120 per cent. In March 1931 the duty was raised to Rs. 7-4-0 per cwt. The c.i.f. price of Java sugar at that time was Rs. 3-12 per cwt. and on this basis the duty worked out to 190 per cent. In Sept. 1931, a surcharge of 25% was imposed on the duty on sugar, thereby raising the total import duty to Rs. 9-1-0 per cwt. The c.i.f. price of Java sugar at that time was about Rs. 5-8-0 per cent. Thus the duty worked out to 165 per cent. From June 1925 to March 1932, the Sugar industry enjoyed the advantage of high rates of specific revenue duty ranging between 50 to 190 per cent.

##### Protection Period 1932-49.

In May 1930, Govt. of India referred to the Tariff Board, for inquiry the claim of the sugar industry for protection. The Tariff Board in its report submitted in January 1931, recommended that protection should be granted to the sugar industry for a period of 15 years and that protective duty at the rate of Rs. 7-4 per cwt. should be levied for the first 6 years and at the rate of Rs. 6-4 per cwt. for the remaining period. An additional duty of annas 8 per cwt. was also recommended in case the landed cost of sugar at Calcutta fell below Rs. 4-0-0 per md. In the meantime, under the Finance Act of 1931, the duty on Sugar was raised from Rs. 6-0-0 to Rs. 7-4-0 per cwt. and in the supplementary budget of September 1931, a surcharge of 25% was imposed on the duty of Sugar thus raising it to Rs. 9-1-0 per cwt. The sugar industry (Protection) Act (1932) was passed in April 1932. Since the revenue duty on sugar had been already raised to Rs. 9-1-0 per cwt, the Protection Act merely converted this revenue duty of Rs. 9-1-0 per cwt. into a protective duty of Rs. 7-4-0 per cwt. plus a surcharge of 25% thereon. Protection was granted for a period of 14 years ending 31st March, 1946. The protective duty of Rs. 7-4-0 per cwt. was to remain in force until 31st March, 1938.

##### Effect of Protection.

On account of the extra protection (25 per cent. surcharge) there was a rapid expansion of sugar industry and production began to increase very rapidly. Thus the number of Vacuum pan factories increased from 29 in 1930-31 to 57 in 1932-33 and 112 in 1933-34. During the same period production of sugar rose from 120,000 to

454,000 tons. At the same time, there was a serious fall in the revenue on sugar; this revenue was reduced from about Rs. 10 crores in 1930-31 to about Rs. 2 crores in 1933-34. It was also discovered that the benefit of protection was entirely reaped by factory owners, and the cane growers for whose benefit the protection was devised did not benefit.

In 1934, therefore, Government reviewed the whole position and imposed an excise duty on sugar so as to neutralise the extra protection enjoyed by the industry and at the same time to recoup the loss to Govt. due to fall in custom revenue. On the other hand they passed legislation enabling Provincial Govt. to enforce a minimum price to be paid by the factories to the cane grower. The excise duty was fixed at Rs. 1-5-0 per cwt. and this reduced the amount of protection from Rs. 9-1-0 to Rs. 7-12-0 per cwt. In 1937, the excise duty on sugar was increased from Rs. 1-5-0 to Rs. 2/- per cwt. and thus reduced the amount of protection from Rs. 7-12-0 to Rs. 7-4-0 per cwt. This duty was due to expire on 31st March, 1938. The Tariff Board of 1938 recommended for a protective duty of Rs. 7-4-0 per cwt. for a period of 8 years ending 31st March, 1946. Pending Government decision on the Board's report, the then existing protective duty of Rs. 7-4-0 per cwt. was extended by one year from 1st April, 1938 to 31st March, 1939. In the meantime, the price of imported sugar had gone up to some extent and in 1938, Govts. of U.P. and Bihar had imposed access on cane supplied to the factories and had decided to strictly enforce the minimum price regulation for cane. The Govt. of India took account of these changes and decided to extend protection by 2 years ending 31st March, 1941. The amount of protective duty was fixed at Rs. 6-12-0 per cwt. In March 1940, the excise duty on factory sugar was increased by Rs. 1-0-0 from Rs. 2-0-0 to Rs. 3-0-0 per cwt. and to offset this, the total import duty (including excise duty) was raised to Rs. 9-12-0 per cwt. In April 1942, a revenue surcharge of 20 percent on the import duty was imposed and the total duty was thereby raised to Rs. 11-11-2 per cwt. This duty was continued until 31st March, 1947.

The Tariff Board held a summary inquiry in February 1947 and recommended that the then existing protection should be continued for a further period of 2 years ending 31st March 1949. The Board also recommended that the Central Government grant to the Indian Central Sugarcane Committee from the sugar excise duty should be increased from 1 anna to 4 annas per cwt. Government decided to accept the Board's recommendation to continue protection to the sugar industry till March 1949. Govt. also raised the grant to the ICSC from 1 anna to 4 annas per cwt. until further orders.

#### **Total Import Duty Since March 1949.**

1. Present Protective duty on Sugar	.. ..	Rs. 6/12 per cwt.
2. The rate of surcharge over it	.. ..	20% of (1)
3. The rate of Excise Duty per cwt.	.. ..	Rs. 3/12
4. The rate of Surcharge on Excise Duty	.. ..	20% of Excise Duty
5. Total Import Duty on foreign Sugar	.. ..	Rs. 12-9 3/5 per cwt.

#### **RECOMMENDATIONS OF THE TARIFF BOARD OF 1948**

The Tariff Board was asked to examine in detail the question of protection enjoyed by the Sugar industry, which was due to expire on the 31st March, 1949. The Board, having examined the matter has submitted its report to Government and has made the following recommendations:—

(1) The protection of the industry has to be continued until the cost of production in this country has been substantially reduced. The existing protection should be continued for a period of two years ending 31st March, 1951. There should be a detailed enquiry at the beginning of 1950 in order to determine the quantum of protection, if any, that should be necessary after 31st March, 1951.

(II) The efficiency of some of the factories in India particularly in the U.P. & Bihar, can be definitely increased by shifting them to more suitable localities and or by making additions and alteration to their plants. The U.P. & Bihar Governments should institute an early inquiry into the conditions of the factories with special reference to their location and plants, and in the light of the findings of such inquiry, call upon sugar mill companies to shift their factories and/or balance their plants at an early date.

(III) The Central Government should continue to allocate adequate funds to the Indian Central Sugarcane Committee for carrying out its five-year plan of research and development. The Provincial Government should intensify their efforts to help the cane growers in utilising the result of research and thereby improving the yield and quality of cane. The representatives of sugar mills should be associated with sugarcane development work in the provinces.

(IV) The Central Government, in consultation with the provincial Governments, should review their plan for expansion of the sugar industry.

(V) It was suggested by the sugar merchants that the Indian Sugar Syndicate manipulated the price margins for different grades of sugar as well as the extra for freight advantage; that the syndicate also sometimes created artificial scarcity by reducing the quotas for despatches from the factories and that some of the factories charged higher prices by putting wrong grade number on the sugar bags. The U.P. and Bihar Sugar Commission should investigate at an early date the question of price margins, extras for freight disadvantages as well as the method of allocation of quotas for despatches and the practice of marking the grades on the sugar bags.

(VI) The Central Government should take powers to ensure that the prices of sugar, as fixed by the Sugar Syndicate, are fair and reasonable. Sugarcane price should be fixed by the different provinces with the approval of the Government of India.

**Constituent Assembly (Legislative) Discusses the Subject of Protection—  
Strong Criticism of Industry. Govt. accept Enquiry Demand.**

The Constituent Assembly (Legislative) on March 25, 1949, passed the Commerce Minister's Protective Duties (Miscellaneous Provisions) Bill continuing protection to the sugar industry, with an amendment reducing the period of protection for the sugar industry from two years to one year.

The discussion on the Bill from the very beginning turned into a debate on the sugar industry. After giving a brief indication of the periods during which protection had been enjoyed by each industry, Mr. Neogy dealt at length with the sugar industry. The sugar industry had enjoyed protection from 1932 and it was now intended to extend that protection for two more years. He said that the industry enjoyed an import duty of Rs. 6-12 per cwt. on foreign imports. When the Legislature agreed to extend protection to the industry in 1946, the Government gave an undertaking that further extension of protection would be asked for only after a proper inquiry by the Tariff Board.

Accordingly, Mr. Neogy continued, an inquiry was made by the Tariff Board in 1947 and it recommended the continuance of protection for a further period of one year from 1947. The Board expressed the view that the Indian sugar industry was likely to require protection for some time to come but a detailed inquiry should be undertaken when conditions became normal. The Board thought that normal conditions would perhaps return before the end of 1948 and suggested that the proposed inquiry should take place about that time. In accordance with that understanding the Tariff Board was asked to make an inquiry into the position of the sugar industry but as a result of representations made by nearly all the provincial Governments,

research institute and sugar mills associations that the conditions were still unstable, a detailed inquiry had to be postponed. The Board itself found that the conditions that prevailed today were not sufficiently normal to conduct an inquiry. Following a conference of various interests the Board recommended the extension of the existing protection for two years in the hope that later it would be possible, if the Government so desired, to undertake a fuller inquiry into the position.

### EARLY PROGRESS.

Referring to the difficulties that confronted the sugar industry Mr. Neogy said that though the effects of protection were gratifying in the first six years, during which considerable improvement took place, unfortunately the rate of progress had not been maintained.

There had been deterioration in certain matters. The total acreage under sugarcane had not gone up and the yield had not improved. The cost of raw material now stood somewhere between 60 and 70 per cent. of the total cost of sugar. Recently, the Government had declared a reduction in the price of sugarcane and the result would soon be felt. The Government had increased grants to the Central Sugarcane Committee from one anna to four annas per cwt. and the amount thus made available to the Committee would be nearly Rs. 50 lakhs. He hoped that this additional help from Government would help the industry and sugarcane growers to improve the conditions. Because of import control, the import of sugar had been negligible. It should be realised that import control under general tariff and trade agreements was not primarily intended for the purpose of giving protection to the industry. Such control could be justified only on the ground of balance of trade difficulties. It would be extremely difficult to invoke general agreement for the purpose of sugar in order to give protection to the industry.

### STRONG OPPOSITION.

Continuation of protection was strongly opposed by Mr. Shibbanlal Saxena, Mr. Bishwanath Das, Mr. Ananthasayanam Ayyangar, Mr. Khandubhai Desai, Dr. P. R. Deshmukh and Mr. R. K. Sidhwa.

Mr. Saxena, who recently had gained prominence by his fast to gain recognition for his Chini Mill Mazdoor Federation, a sugar labour organisation of which he is president, declared that there was no case for protection to the industry. He said that in the past 17 years the industry had made a profit of over Rs. 150 crores and had paid over six times the capital invested in it by way of profits. Government themselves had derived Rs. 40 crores from the industry in various forms of duty.

He said that if protection was to be extended it must not be for two years but only one year and during this time Government must introduce measures to ensure a fair deal to the cane cultivator and labour employed in the industry. He called for doing away with the Sugar Syndicate, and said that if protection was to be extended, the profits should be properly distributed and a committee should be formed to ensure this. The industry he said, must be treated on an all-India basis not as primarily related to the U. P. and Bihar. Minimum prices for cane should be fixed so as to give the cultivator a fair profit and labour should be assured fair remuneration. For the rest, the Government should let prices find their own level.

Mr. Das said that only the rich, roughly 10 to 20 per cent. of the population consumed sugar, the rest wanted only gur. In his opinion, only by removing protection and allowing competition would cost of production be brought down. He added that the Indian Council of Agricultural Research had not devised any improvement in sugar production and it was only wasting money.

## BURDEN OF PROTECTION.

Mr. Ayyangar complained that sufficient time had not been given to the House to consider the projected measure. He suggested the appointment of a standing committee to consider periodically the effect of protection. He calculated that protection to the sugar industry alone meant a burden of Rs. 10 to 12 crores a year on the consumer. Every year the industry was 'befooling' Government, saying "Tomorrow I will be able to stand on my own legs" but that "tomorrow" never dawned. There was still a difference of Rs. 4 in the sale price of Cuba sugar in Pakistan and the cost of Indian sugar, even after making allowance for the excise duty on Indian sugar. The Industry contended that if protection was not continued "we will sink and we will drag the community with us". But there was an alternative, namely, Government taking charge of this essential industry, said Mr. Ayyangar. The capitalists were not playing fair. They refused to subscribe to Government loans and asked for concession. At this rate, at the end of a year or two, there would be a revolution in the country.

In the statement circulated to members, Mr. Ayyangar said, the Commerce Minister had stated that the percentage of profits in the sugar industry was not available. This was surprising. Why should the figure not be available to Government? It was strange that one of the most organised industries in the country was not prepared to place before Government its statistics.

## SUGAR SYNDICATE.

Mr. Ayyangar demanded that the Sugar Syndicate should be liquidated. "At a time when there is unfair and unhealthy competition in the industry," he said, "the industry may have to be saved against itself. Today it is not so. Today the consumers have to be saved against the industrialists. Therefore, there is no longer any need for a syndicate inside the country. Let there be fair and healthy competition between whoever produces sugar inside the country".

He supported Mr. Saxena's plea that protection might be continued for the present for one year instead of two years.

Mr. Prabhudayal Himatsinghka, disagreeing with the point raised by Mr. Saxena said that as against four annas per maund of sugarcane paid in 1937, the cane price was now statutorily fixed at Rs. 1-13 per maund. Added to this was the cess of three annas imposed by the Provinces. A maund of cane thus cost Rs. 2. The recovery from cane was about ten per cent, so that it took ten maunds of sugarcane to produce one maund of sugar, i. e. about Rs. 21 worth of cane for one maund of sugar. Added to this was the excise duty of Rs. 3 per maund. The total cost of producing one maund of sugar, therefore, was about Rs. 26-12 and the selling price was Rs. 28-8. The mill-owner had thus only Rs. 1-12 per maund left to make provision for depreciation, managing agents charges, and his own profits. How could it be said in the light of these facts that the sugar industrialist was making a profit of Rs. 10 per maund? In his view it could never exceed eight annas per maund.

Mr. Himatsinghka urged that before doing away with protection Government should progressively decontrol the price of cane, labour etc. At present the charges of labour had been fixed at Rs. 55. Efforts must also be made by the producers of cane to increase the quantity per acre and the quality of the cane so that the cost of producing sugar would be reduced. Mr. Himatsinghka also said that the industry would be happy if the Sugar Syndicate was abolished. It did not certainly do any good to the industrialists.



## NO BENEFIT TO GROWERS.

Dr. P. R. Deshmukh said that sugarcane growers had rarely received any benefit out of protection to the sugar industry. He gave figures of sugarcane prices and said that the price of sugarcane in Bombay, Madras, East Punjab and Madhya Bharat was far lower than the one fixed in the United Provinces and Bihar. The sugar mills during the last eight or nine years had made exorbitant profits. The per capita consumption of sugar in India was far less as compared to other countries, while the price here was twice as much as that of imported sugar. If the protection was removed, the consumers would be able to consume at least double the quantity of sugar for the cost they incurred now. He said that if Government continued protection, there would be no improvement in the conditions of the industry. Protection might be continued for a year but the duty on imported sugar should be lowered.

He also suggested that acreage under sugarcane in the United Provinces and Bihar should be reduced because soil was not suitable. This was indicated by the poor yield per acre in these provinces as compared to Madras and Bombay. Such reduction in acreage would help in the production of foodgrains thus enabling the country to wipe out the food deficit partially.

## LIMITED IMPORTS.

Mr. Hoosain Imam urged the Government to accept Mr. Saxena's suggestion that the protection be extended only for one year. He suggested that the system of fixing quotas for imports by means of which process could be controlled and the system of subsidising industry should be explored instead of time and again converting a protective duty, after the stipulated period, into a revenue duty.

Mr. R. K. Sidhwa said that if a free vote was taken in the House on the issue of continuance of protection to the sugar industry, the Minister would get a negative vote. Before the war the sugar industry made 60 to 70 per cent. profit. What had happened to all that money? He himself had been a member of the Federation of Indian Chambers of Commerce and Industry for two sessions and he had complained before the Federation that the industry was making 120 per cent. profit and if it frittered away the profits instead of building up the reserve fund, the industry would have at a later stage at the cost of the consumer again to ask for protection.

He suggested that the Tariff Board should be composed of the representatives of Industrialists and consumers in equal strength. The Minister should tell the industry that beyond a certain date they would have no protection. "Our Minister simply ridicules the idea," said Mr. Sidhwa. "He feels that he can do whatever he likes with state money."

## SUPPORT FOR BILL.

Pandit Thakurdas Bhargava said that if they wanted to maintain the industry and look after the interests of all concerned, the protection should continue. They could not afford to allow foreign sugar to come to India at lower price and destroy the industry and also the economy of the country.

Mr. Rohini Kumar Chaudhuri said that if they wanted to extend protection to the sugar industry, they might as well extend it for two years instead of one year. Within two years, the Government might be able to make a comprehensive inquiry into the whole question of future protection for the industry.

## MINISTER'S REPLY.

Replying to the debate, the Commerce Minister explained that having regard to the prevailing uncertainty of economic conditions in India as also in other countries, the Tariff Board had recommended that it would not do to define any definite

protective policy extending over more than one or two years. Having regard to these conditions and also the high prices of sugar prevailing at the present moment, the Board had suggested that the existing protection be continued for a period of two years. The Provincial Governments and other authorities who had tendered evidence to the Tariff Board had all said that it would not be possible for them to furnish the requisite data for a comprehensive inquiry just now.

Mr. Neogy recalled that in 1931, when the Tariff Board had initially recommended protection to the sugar industry for 15 years, they had also indicated that this period might not be sufficient. In 1947 the Tariff Board had said that protection be continued until the cost of production in India had been substantially reduced and that there should be a detailed inquiry into this at the beginning of 1950.

### **SUGAR PRICES HIGH.**

Mr. Shibbanlal Saxena had suggested that they should remove protection immediately and allow the industry to stand on its own legs, in open competition with imported sugar. Unless the price of sugarcane which was now Rs. 2 and Rs. 1-13 per maund in the U.P. and Bihar, respectively, was reduced to somewhere about Rs. 1-6, Indian sugar would not be able to compete with imported sugar which was selling at cheaper prices, Mr. Neogy said.

Indications were that there might be a further fall in the price of imported sugar. Was this the time he asked, when protection should be withdrawn? It would virtually be throwing the indigenous industry to the wolves.

Mr. Neogy said he had however no objection to accepting Mr. Saxena's amendment reducing the period of protection from two years to one year, that is, till March 31, 1950.

He would, however, warn the House that it was extremely unlikely that the Tariff Board would be able to produce a comprehensive report on the industry dealing with all aspects of the question by then. Some ancillary aspects, like the Sugar Syndicate and the possibility of further reduction of prices of sugarcane, could be inquired into.

Referring to the demand that the Sugar Syndicate should be abolished Mr. Neogy pointed out that it had been created by the provinces of the U. P. and Bihar. He would, however, forward the sentiments expressed in the House to the two Governments.

### **MR. SAXENA'S SUGGESTION.**

Dealing clause-by-clause consideration of the Bill, Mr. Saxena moved an amendment seeking to reduce the period of protection to the sugar industry from two years to one year.

Mr. Saxena said that continued protection to the sugar industry should be conditional upon, first, liquidation of the Sugar Syndicate and restoration of internal competition; secondly, holding of an inquiry into the profits made by the industry in the last 18 years and the manner of their distribution among labour, cane-growers and industrialists; thirdly, holding of an inquiry into the progress made in the development of sugarcane since 1932, when protection was first granted, and lastly submission of a plan to place the industry on a sound footing within a limited period of three to five years, after which the industry should not ask for any further protection or aid. It was not fair to burden the consumer for an indefinite period.

During the period of protection, the Government should fix minimum wages and minimum prices of sugarcane, but leave the internal price of sugar to find its own level.

Accepting Mr. Shibbanlal Saxena's amendment, reducing the extension of period of protection to one year the Commerce Minister, Mr. K.C. Neogy warned the House that it would be physically impossible to make a comprehensive inquiry into the sugar industry before the end of the period but such ancillary matters as the functioning of the Sugar Syndicate and possibility of lowering the sugarcane price could be enquired into.

### **LONG TERM ENQUIRY BY THE TARIFF BOARD 1949.**

The protection granted to the sugar industry under the Government of India (Ministry of Commerce) Resolution No. 33 (I)—TB/49 dated the 17th June, 1949 was due to expire on 31st March, 1950 and that according to para 2 of this Resolution, the Government of India in their Resolution No. 33 (I)—TB/49 dated 1st July, 1949 directed the Tariff Board to hold a fuller enquiry into the question of continuance of existing protection to the sugar industry in accordance with the term of reference set out below. The Govt. of India wanted the enquiry to be completed and report submitted by the Board by the end of December 1949.

### **TERMS OF REFERENCE.**

(a) Whether the sugar industry will require, and should be granted protection after March 1950 and if so, for what period, to what extent, on what basis and subject to what conditions including the rationalisation of cultivation of sugarcane as well as sugar manufacture, fixation and control of prices of sugarcane and sugar and other auxiliary matters such as labour conditions and State assistance for the sugar industry.

(b) Whether any quantitative limit to production should also be imposed having regard to the necessity or otherwise for national self-sufficiency in this commodity, the advantages arising out of an export market in sugar, the effective utilisation of bye-products and the industrial and other advantages arising therefrom.

### **Questionnaires.**

In August 1949, the Board issued a number of questionnaires as given below and asked the various interests to submit memorandum on the relevant points raised in the questionnaires.

A- General questionnaire.

B— Additional questionnaire.

No.1 For Sugar Refineries.

No.2 For Khandsari Manufacturers.

No.3 For Gur / Jaggery Merchants.

No.4 For Provincial/State Governments.

C— For consumers.

D— Supplementary questionnaire on the working of the Indian Sugar Syndicate Ltd., Kanpur.

The general questionnaire related to the questions of capital account and overhead charges, production, raw materials, labour and staff, power, fuel and stores, by-products, storage and transportation of sugar, efficiency of production, marketing and claim for protection in so far as central sugar factories are concerned.

The Supplementary questionnaire on the working of the Indian Sugar Syndicate dealt with the questions relating to the functions of the Syndicate, review of its activities since its inception, terms and conditions imposed by the Govt. of U.P. and since April 1949, principle of price differentials, method of grading sugar, marking

wrong grades on the sugar bags, extra profit termed as freight advantage, method of allocation of quotas for despatches of sugar, sale of molasses, contribution made to the Syndicate by factories, control exercised by Joint Sugar Commission and also the question of setting up of an alternative central Selling Agency on All-India basis?

## **TARIFF BOARD'S INQUIRY ON SUGAR PROTECTION—KANPUR AND MADRAS SITTINGS**

Mr. G.L. Mehta, President and Dr. H.L. Dey, Member of the Indian Tariff Board visited Kanpur and held an inquiry on sugar industry at the Indian Institute of Sugar Technology from 31st October, 1949 to 3rd December 1949. They met the representatives of the Kanpur Sugar Merchants' Association, the Kanpur Sugar Brokers' Association and the Directors of Sugar Syndicate Ltd. They also examined and discussed with the Joint Sugar Commissioner for U. P. & Bihar, Cane Commissioners, U. P. & Bihar Mr. R. C. Srivastava, ex-Director, and Shri S.C. Roy, Director, Indian Institute of Sugar Technology. The board also received a deputation from the Sugar Technologists' Association of India.

### **Sugar Merchants' Views.**

The sugar merchants took the view that there was very little chance for initiative left on the part of manufacturers to reduce the cost of production with a ban on imports of sugar and continued protection without any limit granted to the industry. They also pleaded for the abolition of the Indian Sugar Syndicate as its working had proved detrimental to the interests of the country. They were of opinion that import should be allowed and the import duty gradually reduced in a period of 3 years. Criticising vehemently the Indian Sugar Syndicate they favoured the withdrawal of recognition to the Syndicate and the constitution of a central selling agency where in the interest of the industry, cane-growers, government, merchants and consumers would be represented in event of the Tariff Board feeling that there was need for such a body and that more free play of competition without any selling organisation is not enough to protect the interests of the consumers.

### **SUGAR COMMISSION**

With the Sugar Commission the Tariff Board discussed also the efforts made during the last one year regarding control and supervision of the Sugar Syndicate and its working by the Joint Sugar Commission.

### **SUGAR SYNDICATE'S EVIDENCE**

The Board discussed the working of the Syndicate and the question of continuance of protection to the sugar industry. During the discussion the representatives of the Syndicate pointed out that it had served a useful purpose by its existence in maintaining the prices of sugar at an economic level. They, however, made it clear that in the changed circumstances, when there was shortage of sugar in the country, they would have to revise their policy and if necessary, amend their articles of association with a view to ensuring that the maximum prices fixed for sugar were not exceeded.

### **ARTIFICIAL SCARCITY**

As regards the present shortage of sugar in the country, the Syndicate Chairman stated that as sugar had been released freely in the market at the instance of the provincial Government, the stock had passed into the hands of the merchants and an artificial scarcity had been created. In the Syndicate's opinion, there was enough sugar in the country to meet all requirements. The Syndicate felt that the announcement of the Government regarding the freezing without their having adequate machinery to lay their hands on all the available quantities

of sugar with the merchants, had resulted in the present shortage. Only the quantities lying with factories had been frozen and merchants had been left free with the result that sugar stocks had gone underground.

### ALL-INDIA ORGANISATION

The Syndicate favoured the removal of control over sugar. Its representatives felt that control would only worsen the situation. They were also of the opinion that the Syndicate should be an All-India organisation, instead of its activities being confined only to U.P. & Bihar. They felt that this would help in stabilising prices throughout the country.

The Syndicate wanted that the industry should continue to be protected but there should be a regular programme of cane development. This work, if necessary, should be entrusted to the industry, since the main difficulty of the sugar industry was due to the cost of raw materials and its unsatisfactory quality.

The Board discussed with the representatives of U.P. and Bihar Governments the questions relating to the control exercised over the Syndicate by the Sugar Commission and the working of the Syndicate. They also discussed fixation of prices of Sugarcane, both in regard to area of cultivation and sucrose content, sale of molasses, development of power alcohol, and the shifting of economic units to more favourable sites.

The Board met Mr. R.C. Srivastava former Director of the Sugar Institute and discussed with him various issues relating to development and reorganisation of the industry. The main question discussed was the working and reorganisation of the Syndicate, the desirability of central or provincial control over the industry, revision of the cost of production schedule prepared by Mr. Srivastava in 1937, the efficiency of Sugar production and ways and means of improving it, the grading and standardisation of Sugar and the question of qualified technical personnel for the sugar industry.

The Sugar Technologists Association of India's representatives explained their difficulties to the Board in matter of employment. They pointed out that most of the technologists consisting of engineers and chemists were unemployed during the off-season and had to seek some other employment. They suggested that engineers should be utilised in the overhauling of the machinery, and in the manufacture of minor parts in the factory workshops—and the chemists in undertaking cane development work and research in sugar technology of applied nature. They also represented that in most cases the salary and emoluments offered were inadequate and not commensurate with their qualifications.

The Board had a discussion with Mr S. C. Roy, the Director of the Institute, on the working of the Institute and on other questions.

### MADRAS SITTING OF THE BOARD.

Dr. B. V. Narayanswamy Naidu, Member and Mr. R. Doraiswamy, Secretary of the Board visited Madras on 24th & 25th October, 1949 and met the representatives of (1) the Andhra Chamber of Commerce (2) The South Indian Sugar Mills Association.

In the opinion of the Chamber of Commerce there could be no two opinions on the need for continuing protection to the industry beyond March 1950 say for *another five years*. This was necessary to safeguard the interest of the industry and of 20 lakhs of agriculturists employed in growing sugarcane. The Chamber further *opined* that the price of sugar should be reduced and that there should be price control. Dr. Naidu addressed the Chamber and said that recently criticisms were

levelled against the activities of the Syndicate. He said that the Syndicate had played a prominent part in distribution of Sugar and also fixation of price. He informed the Chamber that the Government had asked the Tariff Board to enquire into the affairs and Constitution of the Syndicate and report whether there was need for a Syndicate at all and whether the constitution of the Syndicate should be amended. Dr. Naydu also spoke of the sugar industry in Madras. He expressed the view that the area under Sugarcane cultivation has not increased to the desired extent in spite of protection. Protection had been given to the sugar industry with the dual object of developing the industry making the country self-sufficient in Sugar and that of giving protection to the agriculturists and ensuring them a fair price.

In a memorandum submitted to the Board by Mr. A.G. Bande Goda, President of the South India Sugar Mills Association, the Association stressed the need for developing the sugar industry in South India and stated that, while the yield per acre of Sugarcane was considerably higher in South India the quality was lower. The average recovery in U.P. was 10 per cent and in Bihar 10.5 per cent whereas only a few factories could achieve this figure in South India, due entirely to the poorer quality of the canes handled. Although the biggest factory in India was situated in Madras, the majority of the factories were on the small side, compared with factories in the North. The memorandum stated that the Association's view was that 800 tons per day was the minimum crushing capacity of any factory for economic working and that the majority of factories in South India had either decided or were examining plans to expand to this size.

Giving reasons for the present high cost of Indian sugar, the memorandum stated that the cost of sugarcane was high and it was hoped that the findings of the Technical Committee would point the way to lowering the cost of sugarcane. The Association was also of the view that one of the best ways of achieving both a higher yield of sugar per acre and a better quality cane was to abandon the flat rate per ton basis of payment for sugarcane and adopt sliding scale based on the sugar price and the recovery. As for the attitude of the Government of Madras in this regard, the memorandum stated that for the past few years, the Government appeared to have been in favour of fixed rate per ton of cane. The Association recommended that if Government control was considered necessary under present conditions, it should be exercised by the Government of India so that there might be a uniform policy as regards payment for sugarcane and other matters such as payment for labour which made up the bulk of the cost of sugar. It was further stated that while the cost of the cane was fixed at an arbitrary figure per ton, irrespective of its quality and without reference to the price at which sugar was sold and while labour costs continually increased due to the awards made by the Tribunals under the Industrial Disputes Act there was little hope of effecting a substantial reduction in the cost of sugar although the Association fully agreed that the present cost of Indian sugar was out of proportion to world prices and must be reduced in the interests of the industry itself and to ensure a steady increase in consumption. In the result, the Association urged that it was essential that protection should be continued until such time as the cost of raw material was reduced very considerably. The period for which protection should be given was put by the Association at seven years. The Association was also pledged itself to assist in lowering prices by increasing the crushing capacity of factories and improving manufacturing efficiency.

In the course of the discussion that ensued, it was urged by the members of the Association that facilities should be given by the Central Government to expand the sugar industry in South India both by enlarging the present mills and by putting up new factories. It was pointed out in this connection that South India was a deficit

area in the matter of sugar and climatic conditions in this area were well suited for growing sugarcane.

There was also some discussion about the activities of the Sugar Syndicate. Some members said that there being no representation on the Syndicate for the sugar interests in the South, they were not fully aware of the role the Syndicate was playing so far as marketing of sugar was concerned.

Asked by Dr. B.V. Narayanaswami Naidu for their views on the question of setting up an alternative organisation if the Sugar Syndicate was found unsuited for tackling the question of sugar production and distribution, it was represented on behalf of the Association that a Provincial organisation for Madras would be preferable. This organisation which would have the recognition of the Central Government, it was stated, would advise the interests concerned on questions relating to marketing price, etc.

Dr. Narayanaswami Naidu assured the members of the Association that the various points raised in the course of the discussion would be carefully considered by the Tariff Board before its report was drawn up.

The Association expressed itself in favour of importing an adequate quantity of sugar for utilisation for confectionary purposes.

### **SUMMARY OF EVIDENCES BEFORE TARIFF BOARD 1949.**

#### **Mr. G.L. Mehta's Solution for Crisis.**

Inaugurating the six-day Conference convened by the Board to consider the question of the continuance of protection and certain other matters including the working of the Indian Sugar Syndicate, the present methods of fixation and control of prices of sugar as well as sugarcane and rationalisation of the sugarcane cultivation, Mr. G.L. Mehta, President of the Board expressed the view that the solution to the problem facing the sugar industry lay not merely in increased production, but also in increased economic efficiency, which is equivalent to a reduction in the real costs of production. He added that this could be achieved only by internal organisation from the farm to the factory and from the factory to the dealer. He said that the difficulties and problems of sugar industry had primarily been those of domestic concern and not related to foreign competition.

In a survey of the sugar industry, Mr. Mehta said that the industry stood the country in good stead during the war. In spite of protection extending over 17 years, however, the industry had not developed on a planned basis, its costs of production were high and its prices completely out of parity with world prices of sugar.

Mr. Mehta said: "It is widely felt that behind the tariff wall and with virtually a closed market during the last eight or nine years, there has been little incentive for the industry to increase its efficiency. The situation that has arisen in the last few months does not indicate that this national and protected industry and the sugar trade have an adequate consciousness of their primary obligations to the community."

### **SUGAR CRISIS.**

Mr. Mehta dwelt on the circumstances leading to the present sugar crisis, and inquired as to how the whole of the current year's production together with the carry-over from the previous year vanished and a "scarcity" appeared within a few weeks.

In this context he referred to the fact that according to the constitution of the Indian Sugar Syndicate, it fixed only minimum prices while a member was "quite free to sell at higher than the Syndicate's price and pocket the excess."



Apart from the specific complaints into which the Board had to inquire, Mr. Mehta stated that the Board had been entrusted with the function of reporting, as and when necessary, on monopolies and other restraints on trade. Whatever the justification for the formation of the Syndicate might have been at a time of depression, it was essential now to ascertain what useful functions were being performed by the Syndicate in the interests of the producer as well as the consumer.

Referring to the peculiar nature of the control over the sugar industry as it had evolved in the U.P. and Bihar Mr. Mehta stated : "It is of the essence of a system of control that the responsibility for policy and action should be clearly and finally laid on one particular party." So long as private price control continued to be maintained by the Syndicate, he saw no substance in the demand for the removal of Governmental control over the price and movement of sugar. "It is essential for the Syndicate," Mr. Mehta said "to prove that it is not a form of combination in restraint of trade."

The President referred to the fixation of the price of cane by the U.P. and Bihar Governments and deplored the fact that the advice of the Board for reducing the price of cane by six annas had been ignored by the two Governments. This he said, was not also in consonance with the Government of India's policy to bring down the prices of all foodstuffs and other essential commodities. He reaffirmed the Board's view that "in a matter of this kind, the responsibility should be that of the Central Government."

### OTHER MEASURES.

Other steps which Mr. Mehta suggested for bringing down the cost of production of sugar were the efficient utilization of by-products such as molasses and bagasse, particularly the production of power alcohol, and schemes of research based on the actual conditions and needs of the industry and agriculture in different parts of the country. He also mentioned the cane cess levies by the U.P. and Bihar Governments and asked how far the amounts collected from the cess since its imposition 10 years ago had been utilised for the purpose of cane development.

Referring to the demand for imports of sugar, the President said that the Tariff Board had given it as its considered opinion that no ban on the import of sugar should be maintained except for balance of payments considerations. While recognising that the foreign exchange position was difficult, Mr. Mehta observed that "if the industry is recalcitrant or creates an artificial scarcity, there is no reason why the Government should not explore the possibilities of importing sugar on a barter basis or resorting to controlled imports which would have a salutary effect on internal prices."

On the question of continuing protection, Mr. Mehta said that, while there was a large body of opinion in favour, it had been emphasised that any further protection should not be unconditional but should be subject to a gradual reduction of duty in accordance with a reduction in costs and prices. He sought suggestions in regard to the conditions to be imposed on the industry and on the agricultural interests concerned and for the establishment of an efficient and honest sales organization.

### PUBLIC INQUIRY.

#### (1) Cane-growers, Gur and Khandsari manufacturers.

It was stated on behalf of canegrowers that it was not possible to reduce the price of cane unless a vigorous and concerted programme of cane development was undertaken by the provincial Governments concerned, and there was intensive cultivation of cane. The need of irrigation and supply of manures for immediate improvement in cane cultivation was emphasised. It was pointed out



that if the price of cane were not remunerative, cultivators would take to growing alternative crops and cane acreage would go down thereby adversely affecting the industry.

A representative of *gur* manufacturers explained some of the problems and difficulties in the way and said that food production drive had hampered cane cultivation.

The Board also obtained the views of the cane-growers in regard to the basis and the method of fixation of cane prices and the machinery which would fix such prices and enforce them. The general opinion of the cane-growers' representatives was that the cane prices for the whole of India should be fixed by the Central Government in consultation with the provincial Governments so as not to allow any room for criticism on account of unfair advantage accruing to certain parts of the country at the expense of others.

It was the general feeling that the cane cess collected by the United Provinces and Bihar Governments had not so far been utilised in any appreciable degree to the advantage of the cultivator, the amount being merged in the provincial revenues.

## **(2) Merchants and Consuming Industrialists.**

Representatives of Sugar Merchants' Association from Bombay, Kanpur and West Bengal as well as of confectionary manufacturers and food and fruit preserving industries discussed the question of indigenous demand for sugar and the representatives submitted that it should be put at thirteen to fourteen lakh tons per annum. They felt that as at present situated the Indian mills did not have the capacity to meet the entire demand and therefore some imports would be necessary to fill the gap between indigenous demand and supply unless sugar prices and distribution are decontrolled.

The merchants' representatives said that there was no need for an organisation like the Indian Sugar Syndicate at the present time and recognition to it by the Provincial Governments of U.P. and Bihar should be withdrawn. They were of the opinion that a free market without any control either in regard to price or distribution would bring the situation to normalcy and it would also give some incentive to the manufacturers to improve the quality of sugar and increase production. The merchants, further stated that in its present condition, it would not be possible for the indigenous industry to compete with import from abroad and it; therefore, needed protection for some more time. It was, however, their view that imports of sugar should be allowed subject to Government's balance of payment position.

Representatives of the consuming industries supported protection on condition that they were assisted in obtaining sugar at reasonable or concessional rates. They also complained that adequate sugar was not being supplied to them for the last few months thereby stopping their business.

## **(3) Labour Representatives.**

Mr. Sibbanlal Saxena, Member of the Constituent Assembly and Dr. P.K. Choudhury, presented their views to the board on behalf of the U.P. and Bihar Sugar Workers' Federation, and the Indian National Sugar Mills' Workers' Federation, respectively.

Mr. Saxena represented that the sugar industry being seasonal, there should be some kind of arrangement by which the labour employed in sugar mills could be kept employed during the 'off' season also, particularly because the factories offered them employment only at a time when they could get employment also in agricultural operations. He suggested that the factories should keep workers on their rolls during the 'off' season by paying at least 25 per cent of their wages with a guarantee that they

would be employed by the same factory during the crushing season. He also felt that the existing conciliation machinery in the U.P. was not satisfactory. Mr. Saxena put forward a plea for the implementation of the recommendations of the Nimbkar Committee.

On the question of continuance of protection to the industry, Mr. Saxena stated that the present was the most opportune time for withdrawing protection, because the growers were in a favourable bargaining position and there was no possibility of imports of foreign sugar into the country on account of shortage of foreign exchange. He was of the opinion that the withdrawal of protection would have no adverse effect on the industry which would be able to stabilise itself without much difficulty, especially as the industry had a closed market for the past nine or ten years.

### **FREE MARKET.**

Mr. Saxena was not in favour of any control over the industry either in regard to price or for purposes of distribution. He was also not in favour of any central selling organization and wanted a completely free market.

The Board examined for the second time the representatives of the Indian Sugar Syndicate, Bihar Sugar Mills' Association, and discussed several questions relating to the utilization of by-products, particularly molasses, shifting of factories to more suitable localities, pooling of prices, standardisation and grading of sugar. The question of continuance of control over prices and distribution also figured in the discussion.

#### **(4) Indian Sugarcane Committee's Evidence.**

The representatives of the Indian Central Sugarcane Committee (Mr. Deep Narayan Sinha, Sir Shankar Lall and Thakur Phool Singh) stated that in the past several bodies had dealt with the question of fixation of the price of cane and that, consequently, there had been no co-ordinated and scientific inquiry into the cost of sugarcane cultivation. They stressed that there should be a single authority to inquire into these questions so as to obviate overlapping. An important factor, in their opinion, which would contribute to the improvement in the quality of cane produced was its price. They suggested that the price of cane should be announced before the planting season began so that it might act as an incentive to the farmer to bring more land under sugarcane cultivation.

The representatives of the Committee pleaded for a more liberal allotment of funds by the Government of India so as to enable the employment of the requisite technical personnel by the Indian Central Sugarcane Committee. It was also pointed out that only a small portion of the cane cess collected by the Governments of the U.P. and Bihar had been utilised for the specific purpose for which the cess was intended, namely the development of cane research.

Problems connected with the power alcohol industry and its present position and future prospects were also discussed. Opinion was divided in regard to the prospects of the development of the khandsari sugar. For while some witnesses considered it was wasteful, others stated that the khandsari industry held possibilities of development and that no active steps should be taken to discourage its production.

On the question of continuance of protection to the sugar industry, the representatives of the Indian Central Sugarcane Committee stated that the protective duty had mainly a psychological effect today and that, if necessity arose, imports of foreign sugar should be arranged under the auspices of the Central Government to make up the deficit. It was emphasised, although the actual production was less than the estimated demand for sugar in the country, the factories had the capacity and could produce up to the maximum, given the necessary facilities for the purpose.

Mr. Gajanan Naik, palm *gur* adviser to the Government of India, stressed the need for stepping up the production of sugar by refined palm *gur*. In his opinion, there was no dearth of palm trees in this country, and he saw no difficulty in making palm jaggery.

#### (5) Government Officials and Experts

The Board held discussions with officials of the Ministry of Agriculture, Government of India, and representatives of the provincial Governments of U.P., Bihar, Bombay and Mysore and Mr. Nandlal Dutt, Government Sugarcane Expert at Coimbatore.

Mr. Ram Lall Sethi, Agricultural Commissioner, submitted his views to the Board on questions relating to continuance of protection to the sugar industry, the co-ordination of research and planning between the Centre and the provinces, and cane development and research.

The Board also examined Mr. M.P. Gandhi, editor of the Indian Sugar Industry Annual. It is understood that Mr. Gandhi expressed himself in favour of the replacement of the Sugar Syndicate by an All-India organization for distribution of sugar.

Mr. Gandhi did not favour the continuance of protection along with the ban on imports, and agreed that so long as import restrictions continued, protective duty on sugar might be withdrawn.

#### FISCAL COMMISSION '1949-50'

The Government of India has appointed a Fiscal Commission to examine the policy that has been followed by Government with regard to protection of industries since 1922, when the last Fiscal Commission reported. The Commission will also make recommendations as to the policy that should be adopted in future in regard to protection or assistance to industries.

A review of these matters was essential, specially since the country's partition; even otherwise conditions—both national and international have changed materially. Government had given certain assurances to industries that were started or developed during the war, and the long-term policies in regard to these have to be settled.

Economic conditions, seriously upset by the war in this country as indeed everywhere else, have not yet reached a state of normality or stability. The Commission may, therefore, have to distinguish between short and long-term aspects of the problem in formulating its advice. Further, in the light of the country's requirements, it will also have to consider how far it would be desirable for India to undertake international obligations of the kind involved in the General Agreement on Tariffs and Trade, or the Charter of the International Trade Organisation.

#### PERSONNEL

**Chairman :** Shri V. T. Krishnamachari.

**Members :**

Dr. B. N. Ganguli  
Shri B. M. Birla,  
Shri Aananthasayanam Ayyanagar, M. C. A.,  
Chaudhary Mukhtar Singh,  
Shri Khandubhai Desai, M. C. A.  
Mr. D. L. Mazumdar (Member-Secretary).

Government may appoint further members as and when necessary.

The Commission will have its headquarters at New Delhi. Provincial Governments and Administrations, firms, institutions, associations and persons who are interested or knowledgeable in subjects coming under the enquiry are required to afford the Commission all the assistance and information that it may require.

## **FISCAL COMMISSION VISITS U. P.**

### **U. P. GOVT. AGAINST ABOLITION OF PROTECTION TO SUGAR INDUSTRY**

The representatives of the U.P. Government, told the Commission that for the time being the protection to sugar industry should continue. Conditions in the world were uncertain in economic sphere and till they stabilised the protection should not be withdrawn.

The swiftness with which the Indian sugar industry was reacting to Sardar Patel's call for production more and the announcement by the Government of India of the cancellation of the excise duty on whatever may be the surplus production over and above that of the previous season brings to light imperative necessity of giving a much needed fillip to every industry in order to produce more. The Government of India were also to be congratulated for having announced their decision so quickly in order to enable the sugar industry to commence the crushing season much earlier than was originally scheduled. This announcement was unique in its character for, while it did not upset the budgetary position of the Central Government for the year 1949-50 based as it was on a computation of the crushing of sugar during the last season and thereby did not deprive the Central Exchequer of even one pie of the revenue that still provided the much needed relief to the sugar industry which had been crying that the price fixed for the current season was too low and that a higher price must be fixed.

### **INQUIRY INTO SUGAR PROTECTION**

The Commission, in course of their investigation visited Kanpur on November 26, 1949 and examined the Director of the Sugar Institute, the Chairman of the Joint Sugar Commission, Indian Sugar Syndicate and Kanpur Sugar Merchants' Association.

The Director of Sugar Institute is understood to have emphasized the fact that the most important reason for the poor yield of sugar during last year was the gradual fall in the soil fertility. One of the urgent needs of the country was to restore soil to the original quality by the use of fertilizers on a composite basis.

The Chairman of the Joint Sugar Commission for U.P. and Bihar pointed out, that the Commission was hardly able to exercise adequate supervision over the Sugar Syndicate during the last two years, which stood as a stumbling block in the discharge of its functions contemplated in the Sugar Factories Control Act.

The Commission then examined representatives of the Indian Sugar Syndicate headed by Seth Mangtaram Jaipuria. The discussion mainly centred round the activities of the Sugar Syndicate in the light of the fact whether a governmental organisation on an all-India basis could appropriately replace the Syndicate.

### **CENTRAL PLANNING.**

The representatives of the Merchants Chamber, U.P. are believed to have strongly advocated for Central planning on a comprehensive basis for both agricultural and industrial development. They suggested the setting up a competent body by the Government of India to allocate the resources, lay down the order of priority and to promote a healthy climate for the purpose.

The Chamber felt that the present set-up for the promotion of agriculture and industry led to unnecessary inter-departmental delay.

Referring to the question of capital formation the representatives stated that a reasonable standard of development during the next three years' postulated the investment of Rs. 250/- to Rs. 300/- crores a year provided the necessary investing atmosphere could be created by a suitable fiscal policy.

Representatives of the Kanpur Sugar Merchants' Association expressed the view that the present tariff protection granted to the sugar industry was excessive and there was urgent need for its rationalization.

## FISCAL (PART II)

### INCREASE IN EXCISE DUTY.

An increase in the Central Excise Duty on sugar from Rs. 3/- per cwt. to Rs. 3-12-0 per cwt. with effect from 1st March 1949 was made. This comes to Rs. 0-8-9 per md. of sugar. The price of sugar was therefore raised from Rs. 28-8-0 to Rs. 29-1-0 per md. with effect from 1st March, 1949 for the season 1948-49.

The following chart gives the progressive increase in the rate of excise duty on domestic production of factory sugar since April 1934.

1st April 1934 to 27th Feb. 1937.	Rs. 1-5-0 per cwt.
28th Feb. 1937 to Feb. 1940.	Rs. 2-0-0   "
1st March 1940 to Feb. 1949.	Rs. 3-0-0   "
1st March 1949	Rs. 3-12-0   "

#### N. B.

A revenue surcharge of 20 per cent on excise duty as given above imposed on 1st April, 1942 does not apply to home sugar but only to foreign imported sugar.

### REVENUE DERIVED FROM EXCISE DUTY.

The yield of Revenue from excise duty (in thousand rupees) for the last ten years (April-March) is given below.

TABLE No. 36.

Year. (April-March)	From Khandsari	(In Rs. 1,000) other than Khandsari.
1938-39	59	42,244
1939-40	135	24,718
1940-41	286	39,011
1941-42	444	66,781
1942-43	160	48,924
1943-44	352	70,353
1944-45	365	69,296
1945-46	227	60,933
1946-47*	239 (86+114)	63,883 (2,11,14+2,75,62)
1947-48*	200	48,676
1948-49*	215	64,794

\* For Indian Union only. Figures in brackets relate to the period prior and subsequent to 14th August 1947.

### ALLOCATION OF A PART OF THIS DUTY FOR RESEARCH.

During the year 1947-48, the Govt. of India increased the grant to the Indian Central Sugarcane Committee at the rate of 4 annas per cwt. out of the excise duty on sugar. Formerly the grant was made at the rate of 1 anna per cwt. An amount of Rs. 47,85,000 was paid to the Indian Central Sugarcane Committee by the Government of India during 1947-48 for sugarcane research and development. It was not decided at that time whether this increase in grant was to be on permanent basis. The Tariff Board of 1948-49 recommended that the Central Government should continue to allocate adequate funds to the ICSC for carrying out its 5-year plan of research and development.

**GRANT REDUCED.**

But it was not to be. The Government of India found that they cannot possibly allocate the fund at the rate of 4 annas per cwt. and hence it is understood that during 1948-49 the allocation was decreased to the previous rate of 1 anna per cwt., out of the excise duty on sugar. The following table gives the amount of money spent by the Indian Central Sugarcane Committee since 1945-46 for research work.

Year	Amount Spent (Rupees)
1945-46	10.09 lakhs
1946-47	11.94 lakhs
1947-48	9.64 lakhs

The above sum includes the expenditure both on agricultural research and Technological research schemes.

# CHAPTER XI.

## SUGARCANE AND SUGAR PRODUCTION.

### Sugarcane.

#### Area and yield

The area under cane in the Indian Union and the yields of cane expressed in terms of gur for the years 1936-37 to 1948-49 are given in the following table. The figures for the area under cane for the territories now under the Indian Union for the Pre-Pakistan years have been given :

TABLE No. 37.

Sugarcane area and yield of cane (in terms of raw sugar) in the Indian Union.

Year	Area under cane in acres	Yield in tons of Gur	Yield in tons of Gur per acre
1936-37 to 1938-39 (Average)	3,292,000	4,449,000	1.4
1939-40	3,125,000	4,002,000	1.3
1940-41	3,996,000	5,046,000	1.3
1941-42	2,955,000	3,701,000	1.3
1942-43	3,073,000	4,444,000	1.4
1943-44	3,617,000	5,090,000	1.4
1944-45	3,547,000	4,729,000	1.3
1945-46	3,204,000	4,548,000	1.4
1946-47	3,387,000	4,762,000	1.4
1947-48	4,047,000	5,803,000	1.4
1948-49	3,645,000	43,84,000	1.37

It is clear that the area under cane decreased from the average (1936-37 to 1938-39) of 3.29 million acres to 3.12 million acres in the year 1939-40 but rose appreciably to about 4 million acres in 1940-41. This was followed by another year of lower area and two consecutive years of higher area. There was a progressive fall in the next two years. The area again rose to 3.4 million acres in the years 1946-47 and attained the peak of more than 4 million acres in the year 1947-48. The year 1948-49 witnessed a further drop in the area to 3.6 million acres.

Although cane cultivation has been extensively resorted to by cultivators, the figures in column 3 bear out that little heed has been paid to intensive cultivation. The yield in terms of gur has varied between 1.3 to 1.4 tons per acre.

The following tables show the areas under cane, the yields of cane in terms of *gur* and yields of cane in terms *gur* per acre in the different Provinces and States

**TABLE No. 38.**  
Sugarcane Area (Indian Union)  
Thaousand acres

Provinces & States	1936-37 to 1938-39 (Average)	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47
Assam	37	36	39	43	42	48	51	53	50
Bihar	398	441	508	384	403	422	362	381	398
Bombay	77	100	117	113	106	116	120	125	311
C.P. & Berar	32	30	33	32	26	29	35	41	43
East Punjab	279	239	321	251	256	313	351	314	359
Madras	105	133	162	109	122	155	156	161	180
Orissa	32	33	35	32	33	34	34	35	31
U.P.	2,091	1,876	2,518	1,755	1,865	2,240	2,166	1,818	2,034
West Bengal	61	60	64	58	53	58	58	67	56
Delhi		1	3	2	2	3	3	2	3
<b>A Total Indian Provinces</b>	<b>3,116</b>	<b>2,954</b>	<b>3,800</b>	<b>2,779</b>	<b>2,908</b>	<b>3,418</b>	<b>3,336</b>	<b>2,997</b>	<b>3,224</b>
Baroda	3	2	3	4	4	5	5	5	5
Bhopal	5	6	8	9	6	6	8	9	9
Jaora (C.I.)	(b)	—	—	2	1	1		2	3
Mysore	49	49	53	46	42	40	44	44	40
Rampur	38	33	37	28	32	33	32	24	27
Bombay States	42	45	50	47	45	51	60	64	57
Hyderabad	39	36	45	41	35	63	60	59	79
<b>B Total Indian States</b>	<b>176</b>	<b>171</b>	<b>196</b>	<b>177</b>	<b>165</b>	<b>199</b>	<b>211</b>	<b>07</b>	<b>220</b>
<b>Total (A+B)</b>	<b>3,292</b>	<b>3,125</b>	<b>3,996</b>	<b>2,956</b>	<b>3,073</b>	<b>3,617</b>	<b>3,547</b>	<b>3,204</b>	<b>3,444</b>

(b) Not available



TABLE No. 39.

Sugarcane production (in terms of raw sugar.) Indian Union.

(Thousand tons)

Provinces & States	1936-37 to 1938-39 (Average.)	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47
Assam	37	35	42	43	43	52	60	65	56
Bihar	414	460	517	387	413	427	369	392	393
Bombay	188	253	302	350	361	407	408	420	337
C.P. & Berar	49	44	50	43	38	43	52	57	57
East Punjab	223	180	279	229	246	327	405	395	448
Madras	297	409	485	309	327	435	460	437	527
Orissa	62	65	6	64	64	69	65	68	59
U.P.	2,780	2,129	2,843	1,847	2,570	2,855	2,411	2,223	2,404
West Bengal	100	100	103	84	72	32	79	102	81
Delhi	4	1	1	1	1	1	2	1	2
<b>A Total Indian Provinces</b>	<b>4,154</b>	<b>3,676</b>	<b>4,690</b>	<b>3,366</b>	<b>4,135</b>	<b>4,699</b>	<b>4,311</b>	<b>4,160</b>	<b>4,364</b>
Baroda	7	8	11	17	17	18	18	18	15
Bhopal	5	6	9	8	5	5	8	8	8
Jaora (C.I.)	(b)	—	—	3	2	2	2	2	3
Mysor	62	78	80	86	69	70	73	71	72
Rampur	39	47	35	31	39	39	32	22	32
Bombay States	99	112	118	109	103	136	170	150	141
Hyderabad	83	75	103	81	74	121	115	118	127
<b>B Total Indian States</b>	<b>295</b>	<b>326</b>	<b>356</b>	<b>335</b>	<b>309</b>	<b>391</b>	<b>418</b>	<b>388</b>	<b>398</b>
<b>Total (A+B)</b>	<b>4,449</b>	<b>4,002</b>	<b>5,046</b>	<b>3,701</b>	<b>4,444</b>	<b>5,090</b>	<b>4,729</b>	<b>4,548</b>	<b>4,762</b>

(b) Not available

**TABLE No. 40.**  
Yield of Sugarcane in tons (in terms of *gur*)  
Indian Union

Provinces & States	1936-37 to 1938-39 (Average)	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47
Assam	1.00	.97	1.08	1.00	1.02	1.08	1.18	1.23	1.12
Bihar	1.04	1.04	1.02	1.01	1.02	1.01	1.02	1.03	0.99
Bombay	2.44	2.53	2.58	3.18	3.41	3.51	3.40	3.36	2.98
C.P. & Berar	1.53	1.47	1.52	1.34	1.46	1.48	1.49	1.39	1.33
East Punjab	0.80	0.75	0.87	0.91	0.96	1.04	1.15	1.26	1.25
Madras	2.83	2.96	2.99	2.83	2.68	2.81	2.95	2.71	2.93
Orissa	1.94	1.97	1.94	2.00	1.94	2.03	1.91	1.94	1.90
U.P.	1.33	1.13	1.13	1.05	1.38	1.27	1.11	1.22	1.18
West Bengal	1.64	1.67	1.61	1.45	1.36	1.41	1.36	1.52	1.45
Delhi	1.00	1.00	0.33	0.50	0.50	0.67	0.67	0.52	0.67
Average Indian Provinces	1.33	1.24	1.23	1.21	1.42	1.37	1.29	1.39	1.35
Baroda	2.33	4.00	3.67	4.25	4.25	3.60	3.60	3.20	3.00
Bhopal	1.00	1.00	1.13	0.89	0.83	0.83	1.00	1.00	0.89
Jaora (C.I.)	N	N	N	1.50	2.00	2.00	1.00	1.50	1.00
Mysore	1.27	1.59	1.51	1.87	1.64	1.75	1.66	1.61	1.80
Rampur	1.03	1.42	0.95	1.11	1.22	1.18	1.00	0.92	1.19
Bombay States	2.36	2.49	2.36	2.32	2.29	2.67	2.83	2.34	2.47
Average Indian States	1.55	1.86	1.68	1.95	1.81	1.99	2.01	1.82	1.92
Average Indian Union	1.34	1.27	1.25	1.24	1.44	1.40	1.32	1.41	1.38
Hyderabad	2.13	2.08	2.29	1.99	2.11	1.92	1.92	1.92	1.61

N-Not available

**TABLE No. 41.**

Showing area under cane, yields of cane in terms of *gur* and yields of cane in terms of *gur* per acre.

Provinces & States	Sugarcane area in acres (000 acres)	1947-48	Yield in tons of <i>gur</i> per acre	Sugarcane area in acre (000 acres)	1948-49	Yield in tons of <i>gur</i> per acres
		Yield in ton of <i>gur</i> (000 tons)			Yield in tons of <i>gur</i> (000 tons)	
Assam	60	74	1.23	55	63	1.15
Bihar	366	362	0.99	380	372	0.98
Bombay including merged States	211	695	3.29	181	577	3.19
C.P. & Berar including merged States	59	76	1.29	59	74	1.25
East Punjab	379	396	1.04	298	337	1.13
Madras	273	753	2.76	209	579	2.77
Orissa	32	63	1.97	33	69	2.09
U.P.	2285	2756	1.21	2101	2455	1.17
West Bengal	63	100	1.59	66	106	1.61
Delhi	4	3	0.75	8	5	0.63
A. Total Provinces	3732	5278	1.41	3390	4637	1.37
Kutch	1	2	2.00	(a)	1	—
Madhya Bharat	60	55	0.92	59	55	0.93
Saurashtra	19	43 (estimated)	2.26	12	16 (estimated)	1.13
Hyderabad	128	267	2.09	80	152	1.90
Baroda	6	18	3.00	5	2	0.40
Mysore	50	83	1.66	49	89	1.2
Rampur	38	45	1.18	36	20	0.56
Bhopal	9	8	0.89	11	10	0.90
Junagadh	4	4	1.00	3	2	0.67
B. Total States	315	525	1.67	255	347	1.36
Total (A+B)	4047	5803	1.43	3645	4984	1.36

500 acres (a) Below

The figures for the areas under sugarcane, yields of cane in terms of *gur* and yields of cane in terms of *gur* per acre in the pre-partition years for different provinces and newly formed States are given in table 41. Although the U. P. and Bihar together account for about 67 to 68 per cent of total area under cane, the figures for yields in tons of *gur* per acre are a depressing commentary on the record of the cane development activities of the two Governments. There has been no improvement in the acre yields in the two provinces of U. P. & Bihar particularly during the last decade. Compared to yields of about 62 tons per acre in Hawaii, 56 tons in Java, 41 tons in Peru, 30 tons in Egypt and 21 tons in Australia, 14 tons in India, the home of sugarcane, is absurdly low, inspite of 15 to 17 years of development work. The task of obtaining high yields is not impossible of achievements. The result of the U.P. Cane Development Department's competitions in the last season are very revealing. The winners have been able to produce as much as 66 tons per acre in the Western Range, 63 tons in the Rohilkhand Range, 52 tons in the Central Range, 56 tons in the Mid-Eastern Range and 46 tons in the Eastern Range. The yield can be increased to four to five times provided knowledge of suitable varieties required for various soils and climatic conditions is imparted to cultivators. In the Southern provinces of Bombay and Madras on the other hand where cane development work has been mostly in the hands of private sugar companies there has been an improvement in the acre yields.

### SUGAR DIRECTLY FROM CANE.

#### Number of Factories

The number of factories operating in the different provinces and States in the Indian Union is shown in table No. 42.

TABLE No. 42.

No. of factories operating in Indian Union.

	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49
Assam	1	1	—	—	—	—	—	—	1	—
Bihar	32	32	31	31	31	29	29	29	29	29
Bombay	8	8	10	9	10	10	10	9	10	10
East Punjab	1	1	1	1	1	1	1	1	1	1
Madras	10	11	11	10	12	11	11	11	11	9
Orissa	2	2	2	2	2	1	1	1	1	1
U.P.	70	70	70	71	70	67	67	65	63	65
West Bengal	3	3	3	2	1	1	2	2	1	1
<b>A. Total Indian Provinces</b>	<b>127</b>	<b>128</b>	<b>128</b>	<b>126</b>	<b>127</b>	<b>20</b>	<b>121</b>	<b>118</b>	<b>117</b>	<b>116</b>
Kashmir	—	—	—	—	1	1	1	1	—	—
Baroda	1	1	1	1	1	—	—	—	—	—
Bhopal	1	1	1	1	1	1	1	1	1	1
Jaora (C. I.)	1	1	1	1	1	1	1	1	1	1
East Punjab States	1	2	2	2	2	1	2	2	2	2
Mysore	1	1	1	1	1	1	1	1	1	1
Rajputana	1	1	1	1	1	1	1	1	1	1
Rampur	2	2	2	2	2	2	2	2	2	2
Bombay States	2	2	2	3	4	4	4	4	4	4
Indore	—	—	—	1	1	1	1	1	1	1
Gwalior	—	—	1	1	1	1	1	1	1	2
Hyderabad	1	1	1	1	1	1	1	1	1	1
Other States	—	—	—	—	1	1	1	1	2	2
<b>B Total Indian States</b>	<b>11</b>	<b>12</b>	<b>13</b>	<b>15</b>	<b>18</b>	<b>16</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>18</b>
<b>Total</b>	<b>138</b>	<b>140</b>	<b>141</b>	<b>141</b>	<b>145</b>	<b>136</b>	<b>138</b>	<b>135</b>	<b>134</b>	<b>134</b>

The number of factories operating in the Indian Union has been steadily declining since 1943-44, when 145 factories worked while only 134 factories worked during the year 1948-49. In the United Provinces and Bihar, only 65 and 29 factories worked during the year 1948-49 as against 70 and 31 respectively in the year 1943-44.

### Reallotment of new Sugar Factories.

The sugar panel set up by the late Planning and Development Department of the Govt. of India had recommended in 1945 that the target of sugar production for the whole of India (undivided) should be 16 lakh tons to be reached by 1950. The Govt. of India, however, considered that the target recommended by the Panel was low and decided that it should be raised to 18.5 lakh tons per annum. To cover the gap between the existing production and the target, after allowing for expansion of the existing units and probable production of *khandsari*, it was decided that 45 new sugar units of average crushing capacity of 800-1000 tons per day should be allocated to the various provinces and States and 43 units were accordingly allotted, two units being kept in reserve.

The position having changed consequent on the partition of India in August, 1947, it was considered desirable by Govt. that the decision previously taken should be reviewed. On the consideration of the whole question, Govt. of India have now decided that the target of production may be lowered from 18.5 lakh tons to 16 lakh tons per annum, the reason being that the capacity allowed to the areas now falling under Pakistan has necessarily to be excluded. The reduction in the target will however, not entail any reduction in the number of units already allotted.

Out of the 43 units allotted, three were allotted to areas now under Pakistan. These have now been cancelled and will not be reallotted to any other area in the Indian Union. Out of the units in reserve, the following further allotments have been made.

Madras.

4 units of 400 tons daily crushing capacity each. Total equalling 2 standard units. One.

States (Cochin).

For West Bengal and East Panjab only.

The 3 units originally allotted to United Punjab have now been allotted to East Punjab and the question whether the five units, originally allotted to United Bengal should be allotted to West Bengal is still under consideration of Govt.

The final allocations except for West-Bengal thus stand as under :—

TABLE No. 43

Provinces			States		
U. P.	..	4 units	Hyderabad	..	1 unit
Bihar	..	3 "	Travancore	..	1 "
Bombay	..	6 "	Baroda	..	1 "
(Including two			Mysore	..	1 "
previously allotted					
to Deccan States,			Cooch Behar	..	1 "
Aundh and Jamkhandi,			Malwa Union	..	2 "
now merged in Bombay.)			(Indore I)		
			(Gwalior I)		
Madras	..	8 "	Jaipur	..	1 "
C. P.	..	1 "	Cochin	..	1 "
Assam	..	2 "			
Orissa	..	2 "			
E. Punjab	..	3 "			
					9 units
		29 units			

## ALLOTMENT OF CANE CRUSHING QUOTAS.

Due to over production of sugar in the United Provinces and Bihar in the year 1939-40 and slack demand, prices of sugar sank to uneconomic level. The U. P. & Bihar Govts. therefore instituted control over the production of sugar in the season 1940-41 by setting up a Sugar Commission for advising the two Govts. on the fixation of production, and delivery quotas, selling prices and other matters relating to the Sugar Industry. In order to clear the heavy surplus stocks left over from the 1939-40 crop within a reasonable time, the Sugar Commissioner fixed, the maximum cane crushing quotas during the years 1940-41 and 1941-42, but on account of subsequent increased demand due to war, restriction on the crushing of cane was waived and only minimum crushing quotas were fixed thereafter.

### Duration of Season.

The average number of season days, actual number of working days and dates of commencement and closing of sugar factories are given in table Nos. 44-47.

**TABLE No. 44.**

Average No. of Season days (Indian Union)

	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49
Aassam	74	42	—	—	—	—	—	—	39	—
Bihar	152	115	65	113	108	92	94	88	89	101
Bombay	189	221	190	175	174	145	141	170	175	166
East Punjab	139	139	124	87	149	111	97	109	177	136
Madras	143	168	132	101	134	141	143	130	146	119
Orissa	87	107	93	106	87	118	96	99	150	140
United Provinces	148	111	91	130	148	110	108	111	129	111
West Bengal	118	158	92	59	106	106	65	77	111	95
Average Indian Provinces	149	125	96	125	138	111	99	111	125	114
Baroda	142	107	103	56	96	—	—	—	—	—
Bhopal	68	76	60	69	79	71	71	70	101	114
Jaora (C.I.)	117	149	131	66	111	130	147	169	176	143
Mysore	309	273	296	284	276	232	182	191	238	354
Rampur	135	146	104	117	166	128	73	122	174	90
Bombay States	191	235	200	132	155	158	116	135	141	158
Other Indian States	139	135	110	86	107	107	88	85	131	108
Average Indian States	156	164	137	108	132	127	100	110	147	132
Hyderabad	129	192	173	141	179	205	217	201	229	226
Average India (Including Hyderabad)	149	127	100	124	138	114	100	111	128	138

TABLE No. 45

Actual No. of working days of Central Sugar factories in Indian Union.

Season	Working days	U.P.	Bihar.	Other parts of Indian Union.	Indian Union.
1939-40	Maximum	176	166	203	144
	Minimum	74	104	30	58
	Average	133	136	118	112
1940-41	Maximum	148	123	264	149
	Minimum	58	73	60	103
	Average	100	100	138	131
1941-42	Maximum	121	89	313	136
	Minimum	30	30	32	42
	Average	78	54	120	75
1942-43	Maximum	154	152	278	98
	Minimum	46	58	12	16
	Average	112	96	97	54
1943-44	Maximum	180	129	255	125
	Minimum	80	8	5	17
	Average	131	93	12	62
1944-45	Maximum	134	120	232	88
	Minimum	33	46	2	21
	Average	98	78	118	48
1945-46	Maximum	146	122	185	113
	Minimum	37	53	36	21
	Average	96	79	96	67
1946-47	Maximum	141	100	169	118
	Minimum	55	37	27	21
	Average	97	70	107	68
1947-48	Maximum	187	114	198	198
	Minimum	55	51	14	14
	Average	114	76	127	110
1948-49	Maximum	163	115	341	341
	Minimum	52	48	61	48
	Average	98	84	119	101

TABLE No. 46.

Frequency distribution of dates of commencement of cane crushing seasons in the factories in the Indian Union.

Number of factories.

Dates of Starting	United Provinces	Season 1948-49			United Provinces	Season 1947-48		All-India
		Bihar	All other Provinces and States	All-India		Bihar	All other Provinces and States	
Before 4th Oct.	—	—	1	1	—	—	1	1
4th-31st Oct.	—	—	4	4	—	—	2	2
1st-7th Nov.	—	—	2	2	—	—	3	3
8th-14th Nov.	—	—	3	3	1	—	1	2
15th-21st Nov.	—	—	—	—	4	—	1	5
22nd-28th Nov.	8	—	4	12	7	—	3	10
29th-5th Dec.	7	—	5	12	9	—	4	13
6th-12th Dec.	13	3	8	22	14	3	10	27
13th-19th Dec.	5	6	2	13	11	11	7	29
20th-26th Dec.	1	5	2	8	9	4	2	15
27th-2nd Jan.	15	7	1	23	7	3	3	13
3rd-16th Jan.	17	6	8	31	1	8	—	9
17th-30th Jan.	1	2	—	3	—	—	3	3
After 30th Jan.	—	—	—	—	—	—	2	2
Total	65	29	40	134	63	29	42	134

Although the average No. of season days indicate that the 1948-49 crushing season was highest during the last decade with the exception of 1939-40, yet the actual No. of working days was even lower than 1947-48. This shows that the factories did not get sufficient supplies of cane and were interrupted by long periods of short supplies and even closures on that account. The U. P. factories worked for only 98 days as against 114 in the year 1947-48 and 133 days in 1939-40. The position of Bihar factories which remained alarming for four consecutive years i.e. 1944-45 to 1947-48 however improved in the year 1948-49, as they crushed for an average of 84 working days.

### Capacity.

Average and maximum amount of cane crushed by factories (calculated on the basis of tons of cane crushed per day of actual working) in India is given in Table No. 48.

**TABLE No. 47**

Frequency distribution of dates of closing of cane crushing season in the factories in the Indian Union

Dates of closing	Number of factories							
	Season 1948-49				Season 1947-48			
	United Provinces	Bihar	All other Provinces & States	All-India	United Provinces	Bihar	All other Provinces & States	All-India
Before 18th Feb.	—	—	1	1	—	—	—	—
18th-3rd March	—	—	2	2	3	1	—	4
4th-17th March	7	1	4	12	7	11	1	19
18th-24th March	3	3	—	6	9	6	1	16
25th-31st March	11	8	4	23	2	4	1	7
1st-7th April	9	7	1	17	3	2	1	6
8th-14th April	12	5	4	21	3	1	2	6
15th-21st April	8	2	4	14	1	2	3	6
22nd-28th April	4	—	3	7	2	2	3	7
29th-5th May	2	1	6	9	12	—	5	17
6th-12th May	5	—	5	10	7	—	5	12
13th-19th May	4	2	3	9	10	—	5	15
20th-26th May	—	—	1	1	3	—	5	8
After 26th May	—	—	2	2	1	—	10	11
Total	65	29	40	134	63	29	42	134

**TABLE No. 48**

Cane Crush per day of 24 hours in India

Average and Maximum amount of Cane Crushed (per day of 24 hrs. by factories) calculated on the basis of tons of cane crushed per day of actual work only in India.

Year	Average	Maximum
	Tons	Tons
1934-35	517	2,012
1935-36	568	1,807
1936-37	630	1,960
1937-38	660	2,000
1938-39	630	1,850
1939-40	710	1,960
1940-41	690	1,980
1941-42	640	1,800
1942-43	690	1,920
1943-44	708	1,903
1944-45	681	1,940
1945-46	697	1,927
1946-47	728	1,967
1947-48	742	1,877
1948-49	740	1,957

There has been a progressive increase in the average cane crushed in Indian factories from 1934-35 to 1948-49, although the maximum crush attained by any factory has varied between 1800 to 2,012 tons per day during this period. There is a further scope of increasing the average crush to the average (800-1000 tons) fixed by Sugar Panel.

### Production.

The quantities of cane crushed and sugar and molasses produced by factories in different provinces are shown in Tables 49, 50 and 51 respectively.

**TABLE No. 49.**

**Cane Crushed by Central Sugar factories in Indian Union (1000 tons)**

	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49
Assam	1	1	—	—	—	—	—	—	—	—
Bihar	3,466	2,494	1,134	2,172	2,018	1,589	1,683	1,470	1,605	1,787
Bombay	632	852	861	732	740	694	660	635	811	814
East Panjab	96	96	86	60	110	78	66	79	125	99
Madras	343	482	352	291	420	510	549	596	686	543
Orissa	27	34	32	21	18	24	21	22	36	33
U.P.	7,034	5,200	3,877	6,028	7,332	5,186	5,114	5,244	6,123	5,303
West Bengal	129	184	108	49	43	47	43	46	48	41
<b>A Total Indian Provinces</b>	<b>11,728</b>	<b>9,343</b>	<b>6,450</b>	<b>9,353</b>	<b>10,681</b>	<b>8,128</b>	<b>8,136</b>	<b>8,092</b>	<b>9,434</b>	<b>8620</b>
Baroda	15	18	18	9	10	—	—	—	—	—
Bhopal	24	37	24	15	33	35	36	37	53	58
Jaora (C.I.)	60	87	78	29	50	73	81	79	97	84
Mysore	297	304	330	161	203	178	161	158	189	318
Rampur	234	268	197	217	324	254	141	244	354	173
Bombay States	180	222	193	166	167	170	156	133	180	211
Hyderabad	101	204	177	141	177	197	182	178	227	236
Other Indian States	113	235	224	107	296	184	216	196	376	340
<b>B Total Indian States</b>	<b>1,024</b>	<b>1,375</b>	<b>1,241</b>	<b>845</b>	<b>1,260</b>	<b>1,091</b>	<b>973</b>	<b>1,025</b>	<b>1,477</b>	<b>1,420</b>
<b>Total (A+B)</b>	<b>12,752</b>	<b>10,718</b>	<b>7,691</b>	<b>10,198</b>	<b>11,941</b>	<b>9,219</b>	<b>9,109</b>	<b>9,117</b>	<b>10,911</b>	<b>10,040</b>



**TABLE No. 50**  
Sugar production directly from cane in tons (Indian Union)

Province or States.	1939-40	1940-41	1941-42	1942-43	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49
(a)	(a)									
Bombay	322,100	246,100	117,300	237,400	212,400	169,900	176,600	148,200	168,500	184,900
East Punjab	69,300	84,800	85,000	77,900	81,200	74,900	72,400	65,400	89,600	88,100
Madras	8,400	9,300	7,900	5,600	11,200	8,200	6,700	8,000	12,300	9,700
Orissa	31,300	44,100	30,800	27,500	39,200	46,500	49,200	48,700	59,300	51,000
U.P.	2,300	3,000	3,000	2,100	1,700	2,600	2,100	2,300	3,500	3,400
West Bengal	659,500	513,300	382,900	612,500	727,100	528,900	515,900	525,800	599,900	527,000
	12,100	15,200	8,300	3,800	4,060	4,800	4,400	4,400	5,200	4,400
A Total Indian Provinces	1,105,000	915,800	635,200	966,800	1,076,860	835,800	827,300	802,800	938,300	868,500
Baroda	1,120	1,480	1,330	680	870					
Bhopal	2,030	3,580	2,060	1,350	2,810	3,080	3,100	3,300	4,800	5,300
Jaora (C.I.)	5,380	7,750	6,950	2,660	4,500	6,760	7,600	7,000	8,400	8,100
Mysore	30,300	27,690	27,540	15,670	20,970	17,320	17,500	16,100	17,300	27,300
Rampur	23,050	26,590	19,600	21,120	32,050	26,300	13,700	24,700	33,700	16,600
Bombay States	20,580	23,840	22,020	19,800	19,800	18,940	18,700	14,500	20,500	24,500
Hydrabad	10,450	20,340	16,850	14,620	17,450	17,700	16,400	16,400	19,800	21,300
Other Indian States	9,890	19,030	19,770	9,100	25,350	16,300	18,600	16,300	32,000	29,300
Total Indian States	102,800	130,300	116,200	85,000	123,800	106,400	95,600	98,300	136,500	132,400
Total (A-B)	1,207,800	1,046,100	751,400	1,051,800	1,200,660	942,200	922,900	901,100	1,074,800	1,000,900

TABLE No. 51.

Production of molasses from cane in Indian Union—(Tons)

	1939- 40	1940- 41	1941- 42	1942- 43	1943- 44	1944- 45	1945- 46	1946- 47	1947- 48	1948- 49
U. P. ..	258,400	189,300	130,700	212,300	262,600	174,800	176,500	171,800	223,500	184,800
Bihar ..	125,600	93,500	37,400	74,400	68,300	53,900	59,900	48,800	54,600	63,100
Bombay ..	24,200	35,400	38,600	28,600	28,700	27,300	26,400	25,800	30,900	31,800
Madras ..	15,200	20,700	16,600	11,300	17,900	20,900	23,300	27,500	30,300	22,900
W. Bengal ..	4,600	7,700	4,500	900	1,700	1,900	1,700	2,000	2,000	1,600
Orissa ..	1,300	1,600	1,500	700	800	1,200	1,000	900	1,800	1,600
E. Punjab ..	3,700	3,200	2,700	1,800	3,400	2,200	2,000	2,000	4,200	3,000
Total for Provinces	433,000	351,400	232,000	330,000	383,400	282,200	290,800	278,800	347,300	308,800
Indian States Including Hyderabad	37,600	47,900	48,000	30,500	46,700	41,600	37,500	39,400	63,500	60,900
Total India Union	470,600	399,300	280,000	360,500	430,100	323,800	328,300	318,200	410,800	369,700

The output of sugar in Indian Union in 1948-49 was only a million tons while the productive capacity of white sugar factories is known to exceed 1.2 million tons. The official efforts at maximising production in U. P. in the form of high cane price and liberal allowances in the sugar price have not borne fruits. The U. P. produced 5.27 lakh tons only in 1948-49 as against 7.27 lakh tons in 1943-44. In all other provinces the output of sugar has declined except in Bihar where output has increased by about 10 per cent over last year.

### Recovery.

The recoveries of sugar and molasses per cent cane are shown in tables No. 52 and 53.



TABLE No. 53.

Recovery of molasses per cent Cane

Year.	U. P.	Bihar.	Rest of India.	India.
1939-40	3.67	3.62	3.85	3.69
1940-41	3.64	3.74	3.94	3.76
1941-42	3.37	3.30	4.14	3.65
1942-43	3.52	3.42	3.71	3.54
1943-44	3.58	3.39	3.87	3.61
1944-45	3.37	3.37	3.88	3.51
1945-46	3.45	3.56	3.88	3.62
1946-47	3.32	3.31	3.98	3.49
1947-48	3.65	3.40	4.17	3.76
1948-49	3.48	3.53	4.13	3.68

The average sugar recovery in the whole of Indian Union increased progressively from 1939-40 to 1942-43 but in subsequent years it declined and came down to 9.95 per cent. in the year 1947-48 as against 10.31 per cent. 1942-43. In 1948-49 it again rose to 9.97 per cent. the maximum being 12.53 per cent. The U. P. obtained a recovery of 9.93 per cent as against its record of 10.20 per cent in 1944-45. In Bihar the average recovery during the last decade was highest in 1942-43. Thereafter it declined to 10.08 per cent in the year 1946-47. The average recovery in Bihar during 1948-49 was 10.34 per cent as against 10.49 per cent in 1947-48.

### Sugar Refined from Gur.

The production of sugar by refining gur is shown in table 54.

TABLE NO. 54.

Production of Sugar by Refining Gur-(India Undivided)

Year	No. of refineries working	Gur melted in tons	Sugar produced in tons	Molasses produced in tons	Recovery of Sugar percent gur	Recovery of molasses per cent gur
1932	17	126,251	69,590	46,636	55.10	36.90
1933	27	151,269	80,106	56,239	52.95	37.17
1939	10	23,300	14,200	5,400	60.94	27.46
1940	11	50,800	29,600	15,800	58.26	31.10
1941	14	87,300	48,500	32,000	55.55	36.65
1942	11	21,700	13,400	7,600	61.80	35.00
1943	5	9,860	6,370	2,680	64.60	27.18
1944	4	13,440	7,980	3,850	59.38	28.65
1945	3	9,357	6,030	2,354	64.42	25.21
1946	3	5,846	3,754	1,676	64.21	28.52
1947	2	6,230	4,000	1,795	64.18	28.82
1948	2	5,440	3,500	1,487	64.30	27.52

Refining is a declining branch of the sugar Industry. The No. of refineries during 1941 to 1948 dropped from 14 to 2 and the output of sugar refined from gur from 48,000 tons to 3,500 tons. The higher cost of production and high prices of gur are the two important factors responsible for this decline.

### Total Production of Sugar.

The total production of sugar in Indian Union, from all sources is shown in Table No. 55.

TABLE No. 32  
Sugar recovery in factories in Indian Union.

1939-40			1940-41			1941-42			1942-43			1943-44			1944-45			1945-46			1946-47			1947-48			1948-49		
Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average
10.31	8.34	9.28	11.01	8.61	9.86	12.05	8.52	10.35	11.92	9.11	10.92	11.62	9.03	10.53	11.84	9.00	10.69	11.79	8.93	10.49	11.21	8.80	10.08	11.51	9.22	10.49	11.56	8.80	10.34
11.71	9.83	10.97	10.70	8.73	9.55	10.79	9.46	9.87	11.62	8.21	10.64	11.56	9.03	10.98	1.59	7.92	11.79	12.00	9.89	10.97	10.88	9.41	10.30	11.85	9.94	11.05	11.27	9.96	10.83
8.30	8.80	8.80	9.70	9.70	9.70	9.16	9.16	9.16	9.14	9.41	9.14	10.14	10.14	10.14	10.47	10.47	10.47	10.12	10.12	10.12	10.17	10.17	0.17	9.86	9.86	9.86	9.77	9.77	9.77
10.06	5.83	9.12	11.16	6.74	9.15	10.15	5.25	8.74	10.16	6.30	9.45	10.71	6.30	9.32	10.41	7.20	9.11	9.9	7.08	98.6	11.20	6.43	8.17	10.35	3.05	8.65	11.11	8.93	9.39
8.57	7.20	8.39	8.89	6.50	8.77	9.47	7.60	9.43	9.97	5.20	9.95	9.66	6.10	9.66	10.66	10.66	10.05	10.05	10.05	10.05	10.37	10.37	10.37	9.70	9.70	9.70	10.43	10.43	10.43
10.34	5.93	9.37	10.83	7.06	9.87	11.22	7.74	9.87	11.72	7.83	10.16	11.79	6.00	9.92	11.31	8.47	10.20	11.21	7.84	10.09	10.95	4.76	10.03	10.95	8.30	9.80	11.08	8.79	9.93
9.60	6.23	9.36	8.70	6.30	8.26	8.22	8.36	7.70	8.37	6.61	7.74	9.51	9.51	5.91	10.34	10.34	10.34	10.79	6.01	10.33	10.41	7.57	9.61	10.84	10.84	10.84	10.69	0.69	10.69
10.22	10.22	10.22	9.11	9.11	9.11	8.35	8.35	8.35	9.71	9.71	9.71	10.93	10.93	10.93	9.74	9.74	9.74	10.85	10.85	10.85	10.20	10.20	10.20	9.18	9.18	9.18	8.57	8.57	8.57
12.31	10.99	11.41	10.90	10.64	10.74	12.45	10.89	11.39	13.35	8.51	11.89	12.84	11.10	11.88	11.65	10.75	11.17	12.28	11.80	11.96	13.46	9.80	10.37	11.93	9.08	11.00	12.33	8.96	11.66
12.31	5.83	9.47	11.16	6.30	9.76	12.45	5.25	9.77	13.35	5.20	10.31	12.84	2.85	10.06	11.84	6.93	10.22	12.28	6.03	10.13	13.46	4.21	9.88	1.85	3.05	9.85	12.53	6.49	9.97

TABLE No. 55

Production of of Sugar in the Indian Union by Cane Factories, Gur refineries and Khandsaris

Year	Number of factories producing sugar directly from cane	Production of Sugar direct from cane	Number of refineries	Production of sugar refined from gur	Production of khandsari gur	Total production of sugar
1936-37	129	1,087,970	8	25,400	92,150	1,205,520
1937-38	131	914,580	10	17,200	115,190	1,046,970
1938-39	132	642,160	10	14,700	92,150	7,49,010
1939-40	138	1,207,800	11	26,500	114,510	1,348,810
1940-41	140	1,046,100	13	42,030	183,810	1,271,940
1941-42	141	751,400	10	19,870	91,480	862,750
1942-43	141	1,051,800	5	7,800	195,870	1,255,470
1943-44	145	1,200,650	4	7,700	137,330	1,345,680
1944-45	136	942,200	3	6,400	114,700	1,063,300
1945-46	138	922,900	3	4,100	106,800	1,033,800
1946-47	135	901,100	2	4,000	94,000	999,100
1947-48	134	10,74,800	2	4,000	105,000	1,183,800
1948-49	134	1,009,000	2	3,500 (Estimated)	90,000 (Estimated)	1,102,500

The total sugar output in 1948-49 is estimated at 11 lakh tons and added to this a carry over of about 1.75 lakh tons from the previous year, the total amount of sugar available for consumption in 1949 is estimated at 12.75 lakh tons.

#### Gur.

The production of gur still form the main outlet for the sugarcane crop in Indian Union. Nearly three times as much cane is crushed every year for the manufacture of gur as for the production of sugar. The production of gur has increased from 2.7 million tons in 1945-46 to about 3.2 million tons in 1947-48 and is expected to go up further in 1948-49.

The production of gur in Indian Union and different Provinces and States are shown in Tables. No. 56 and 57.

TABLE NO. 56.

Calculated net production of gur in Indian Union for direct consumption

Year	Calculated Net Production of gur (Thousands of Tons)
1937-38	2,777
1938-39	2,186
1939-40	1,919
1940-41	2,817
1941-42	2,172
1942-43	2,342
1943-44	2,833
1944-45	2,828
1945-46	2,712
1946-47	3,058
1947-48	3,169

TABLE NO. 57.

Production of *gur* in the different Provinces and States (1000 tons.)  
 Net Production of *Gur* in town

Provinces and States	1943-44	1944-45	1945-46	1946-47	1947-48
U. P. including States	1,395	1,357	1,219	1,365	1,561
East Punjab	243	312	305	319	300
Bihar	182	142	155	166	124
West Bengal	64	60	81	78	79
Madras	290	320	283	392	452
Bombay including States	337	393	350	360	325
Assam	43	54	42	48	53
C. P. Berar	37	41	47	44	52
Orissa	57	53	56	46	48
Delhi	2	2	1	2	3
Mysore	39	44	43	42	52
Hyderabad	50	71	79	84	131
Baroda	13	15	13	12	14
Bhopal	1	3	3	3	2

## CHAPTER XII.

### QUALITY OF SUGAR.

The production of various grades of sugar both in tons and per cent total production, for the season 1948-49 is shown in Table No. 58 along with figures for the previous season for comparison. They were compiled by the Director Indian Institute of Sugar Technology from the returns submitted by sugar factories

#### (1) Colour

ISS No. 27 continues to be the most predominant colour grade as in the last 5 seasons and accounts for 60.86 per cent as against 56.33 per cent last year. The bulk of production of sugar in various colour grades, arranged in the descending order of the percentage of total production during the past two seasons is shown below.

ISS. No.	Year 1948-49	1947-48
	Percent	
26	9.35	19.88
27	60.86	56.33
28	26.41	17.76
29	1.97	1.18

The production of ISS No. 29 the highest colour grade, shows an increase from 1.18 to 1.97 per cent during 1948-49. Production of ISS No. 28, also records an increase of about 8.65 per cent over that of the last year. Production of ISS No. 26 however, has gone down from 19.88 per cent to 9.35 per cent this year. The bulk of production is represented by three colour grades viz ISS Nos 28, 27 and 26 which together account for 96.62 per cent of the total production. There was a decrease in production of ISS colour grades No. 26 and 25. This indicates a definite progress towards production of better qualities of sugar in respect of colour.

#### (2) Grain Size.

The bulk of production is represented by ISS grain size C, D, E and F and account for 96.73 per cent of total production. The following table gives the percentages of these along with the corresponding figures for the previous year.

ISS. grain size Nos.	1948-49	1947-48
	Percent of Total	
D	48.49	47.68
E	32.22	35.38
C	13.79	11.49
F	2.23	2.59

Production of sugar in different ISS grain size continues to be more or less similar to that of the last year. The production of grain size A has increased but that of B has decreased. ISS grade C records an increase of 2.30 per cent over that of last year. The production of ISS grade D continues to be the most predominant grade as in last 4 years. The production of E has decreased from 35.38 per cent to 32.22 per cent this year.



**(3) Crushed Sugar.**

It has shown an increase of 0.48 per cent over the previous year. The figure for the year 1948-49 is 0.59 per cent.

**(4) Ungraded Sugar.**

The percentage of ungraded sugar has decreased and the figure for this year is 0.23 per cent.

**U. P. AND BIHAR**

The details of the various quality grades of sugar by factories in the U. P. and Bihar are now available and have been supplied by the Indian Sugar Syndicate, and are as below :—

In the year under review, namely, 1948-49, the tendency to produce a large number of grades still persisted. As many as 525 samples were found differently designated by different member-mills who are about 94 in number. The average number of qualities per factory worked out to 5.58 as against 5.6 last year.

Taking the colour and grain together, D-27 occupied the most prominent place with a percentage production of 30.14 as against last year's ratio of 27.46. The next highest quality was E-27 with a percentage production of 17.29 as against 18.93 of the previous year.

This year the production of 29 colour sugar with grains varying from B to G showed a good rise, the percentage being 1.58 as against 0.23 of last year. Similarly, in colour 28 also, an improvement was observed, its production being almost double that of last year's, or, in other words, 29.01 per cent as against 16.47 last year. The uniform rise in higher colours of 29, 28 and 27 over last year's similar colours has been possible due to minimisation in production of 26 colour which is only 9.14 per cent as against 23.01 of last year.

In regard to higher grain size, a marked qualitative rise, with an exception in grain E, was observed, B grain being of 2.2 per cent as against 0.59 last year and C and D respectively are responsible for 18.4 per cent and 49.23 per cent as against 14.26 and 47.20 per cent of previous year.

Like last year the production of sugar below colour 24 was almost nil. Similarly, the production of crushed sugar was quite negligible, the percentage being hardly 0.2. It will be observed that during the year three main qualities in grains C, D, and E were confined to colours 28 and 27. This was an improvement no doubt over the last year.

**TABLE No. 58.**

Percentage Production of Sugar according to ISS grades (1948-49)

Grain Size	Crystal (Colour)								Total	
	29	28	27	26	25	24	23	22	1948-49	1947-48
AA	—	—	—	—	—	—	—	—	.73	.006
A	—	—	0.73	—	—	—	—	—	1.62	1.98
B	0.41	.90	0.26	.04	0.006	—	—	—	13.79	11.49
C	0.62	4.52	7.43	1.09	0.13	0.01	—	—	48.49	47.68
D	0.82	13.10	30.47	3.94	0.14	0.01	—	—	32.22	35.38
E	0.04	7.05	20.96	3.94	0.22	0.005	—	—	2.23	2.59
F	0.02	0.83	1.00	0.32	0.05	0.01	—	0.01	0.09	0.22
G	0.07	—	—	0.01	—	0.01	—	—	—	—
Total 1948-49.	1.97	26.41	60.86	9.35	0.55	0.03	—	0.01	99.18	—
Total 1947-48.	1.18	17.76	56.33	19.88	4.03	0.14	0.003	0.01	9.34	—

## CHAPTER XIII.

### SUGARCANE AND SUGAR PRICE.

#### Cane

##### Cost of Production.

The basic weakness of the Industry today lies in the extraordinary high cost of sugarcane. No attempts have been made in recent years to find out the cost of production of sugarcane in U. P. & Bihar, the major sugar producing provinces of India. The cane price fixed in these provinces have direct bearing on the fixation of sugar price throughout India. Isolated attempts have however been made in different places like the Sugar Research Station at Shahjahanpur and Pusa but these attempts relate to only ideal conditions divorced from actual conditions under which a ryot works. The fixation of cane price in U. P. and Bihar largely depends upon the price of gur and upon the factors responsible for stimulating cane supplies to sugar factories. The prices of alternative crops like wheat etc., also affect the fixation of cane price.

##### Technical Sugarcane Committee.

The Government of India after considering the importance of this problem set up a Technical Sugarcane Committee under the Chairmanship of Mr. T. Vijayaraghavacharya in September 1949 to go into the question of cost of Sugarcane cultivation. A comprehensive questionnaire was issued to Provincial Governments, Sugarcane growers and institutions interested in sugarcane cultivation. The questionnaire is in two parts. The first part is addressed to sugarcane growers in particular and seeks to obtain information about the area cultivated, method of disposal of cane, cost of cultivation, capital expenses and finally suggestions for reduction in the cost of production. The other part is directed primarily to workers in sugarcane research and development. It aims at obtaining up-to-date information on the progress of research in various provinces and states, the organisations undertaking such research, the optimum quantity of nitrogen that should be applied to increase production, water requirements, methods of estimating the area and yield of sugarcane and pests and diseases which damage the crop. In order to expedite the collection of statistics on cost of production of cane the members of the Technical Committee personally visited all the provinces and made inquiries on the spot. The report has been submitted to Government and is expected to be an important document on the subject.

##### Cost of Cultivation in Madras.

An attempt has also been made by the Indian Institute of Sugar Technology for finding out the cost of cultivation per acre of an ordinary ryot in Madras. The following figures have been taken from Appendix IIB of the said report published in "Proceedings of the Seventh Annual Convention of the Sugar Technologists Association of India-Part II".

## Cultivation Costs of an ordinary ryot per acre.

	Propped.						Unpropped.					
	Plant.			Ratoon.			Plant.			Ratoon.		
	Rs.	As.	p.	Rs.	As.	p.	Rs.	As.	p.	Rs.	As.	p.
Land preparation	50	0	0	..	..	..	50	0	0	..	..	..
Seed material 3 tons @ Rs 50/- per ton	150	0	0	..	..	..	150	0	0	..	..	..
Planting, 25 Coolies	25	0	0	..	..	..	25	0	0	..	..	..
Manures	150	0	0	150	0	0	100	0	0	100	0	0
Manuring	10	0	0	10	0	0	10	0	0	10	0	0
Hoeing, 2 times at 20 Coolies each time @ Rs 1-0-0 each	40	0	0	20	0	0	40	0	0	20	0	0
Trenching, 2 times at 20 Coolies each time @ Rs 1-8-0 each	60	0	0	30	0	0	60	0	0	30	0	0
Propping and wrapping 5 times, 65 collies @ Rs 1-4-0 each per day	206	4	0	206	4	0	..	..	..	..	..	..
Bamboos 4,000 @ Rs 120/- per 1,000 distributed over 3 years	160	0	0	160	0	0	..	..	..	..	..	..
Irrigation	10	0	0	10	0	0	10	0	0	10	0	0
Harvesting @ Rs 3/- per ton	120	0	0	105	0	0	75	0	0	66	0	0
Cart hire @ Rs 4/- per ton.	160	0	0	140	0	0	100	0	0	88	0	0
Establishment charges	..	25	0	..	25	0	..	25	0	..	25	0
Land rent	..	200	0	..	200	0	..	200	0	..	200	0
Levelling	..	..	..	..	25	0	..	..	..	..	25	0
<b>Total</b>	<b>1366</b>	<b>4</b>	<b>0</b>	<b>1,081</b>	<b>4</b>	<b>0</b>	<b>845</b>	<b>0</b>	<b>0</b>	<b>574</b>	<b>0</b>	<b>0</b>
Estimated yield	..	40	tons	..	35	tons	..	25	tons	..	22	tons
Estimated Cost per ton	..	34	2 6	..	30	14 3	..	33	12 10	..	26	1 5
Factory price per ton	..	42	0 0	..	42	0 0	..	42	0 0	..	42	0 0

The above Costs apply for both the Seasons 1947-48 and 1948-49

Net profit per ton	..	7	13	6	11	1	9	8	3	2	15	14
Net profit per acre	..	313	12	0	388	14	0	205	7	6	350	1 0

	Propped						Unpropped					
	Plant			Ratoon			Plant			Ratoon		
Cost per md.	..	1	4	1	1	2	2	1	3	10	0	15 4
Factory price per md.	..	1	8	8	1	8	8	1	8	8	1	8 8
Net profit per md.	..	0	4	7	0	6	6	0	4	10	0	9 4

The above figures reveal that the profit per md. of cane earned by cultivators in Madras varies from As. 0/4/7 to As. 0/9/4.

A similar survey is intended to be conducted in a few northern sugar factories during 1949-50 Season.

## U. P. AND BIHAR.

## Price of Cane.

The Sugarcane prices in rupees per md. fixed by the Govt. of U.P. and Bihar from 1935-36 to 1949-50 are shown in Table 59.

**Table No. 59**

### Showing prices of Sugarcane

Year	Sugarcane price expressed in Rs. per md.						
1935—36	0	5	0	to	0	5	6
1936—37	0	4	0	to	0	4	0
1937—38	0	5	0	to	0	5	3
1938—39	0	3	0	to	0	7	3
1939—40	0	5	3	to	0	11	9
1940—41	0	4	3	to	0	4	6
1941—42	0	5	0				
1942—43	0	8	0	to	0	10	0
1943—44	0	12	0				
1944—45	0	14	0				
1945—46	0	14	6 }				
	0	14	0 }				
1946—47	1	4	0				
1947—48	2	0	0				
1948—49	1	10	0				
	1	13	0				
1949—50	1	10	0				
	1	10	9				
					at factory gate		
					at station		
					for U. P.		
					for Bihar		
					for U. P.		
					for Bihar		

**Madras.**

A sliding scale prepared by the Madras Mills Association and agreed to by the Government of Madras was enforced in the year 1947-48. The scale connects the average cane price (expressed as percentage of the net amount realised by individual factories from the sale of sugar divided by the actual number of tons cane used in the production of one ton of sugar) with that of sugar price and is given as under :—

Sugar price	Average Cane price
Above Rs. 840	60%
Above Rs 740 upto Rs. 840	59%
Above Rs 640 upto Rs. 740	57%
Above Rs 540 upto Rs. 640	55%
Upto and including Rs. 540 payable in two instalments	52.5%

(a) An initial payment on delivery of R. 38/- per ton to cover cost of cultivation and profit margin and

(b) a deferred payment representing the difference between the cane price as ascertained by the formula and the delivery price, payable after sale of the sugar produced from the cane in question.

The above system guaranteed to the cultivator a minimum price sufficient to cover his estimated cost of cultivation, as well as a reasonable profit margin, and a reasonable share in return on the sugar produced.

The sliding scale mentioned above however had its own defects in so far as it involved lot of administrative difficulties and therefore did not meet favour of the Govt. in the season 1948-49. The Government of Madras fixed in this season flat rate of Rs. 46/- as the minimum price for a ton of sugarcane, purchased in any area in the province, and intended for use in a factory with a crushing capacity of 100 tons and more, plus the actual freight advantage and Rs. 42/- per ton as the minimum price for the purchase of sugarcane intended for use in a factory with a crushing capacity of less than 100 tons.

**Price of Cane actually paid to growers.**

The cost of cane at factory and the price paid to growers in 1947-48 and 1948-49 were as shown in Table 60 and 61.

TABLE NO. 60

Sugarcane prices in Season 1947-48.

Month.	No. of factories which paid to growers per md. of Cane												No. of factories which incurred a Cost per md. of cane at factory.															
	Below 24 as.	-25 as.	-26 as.	-27 as.	-28 as.	-29 as.	-30 as.	-31 as.	-32 as.	-33 as.	-34 as.	-35 as.	-36 as.	Above 36 as.	Below 24 as.	-25 as.	-26 as.	-27 as.	-28 as.	-29 as.	-30 as.	-31 as.	-32 as.	-33 as.	-34 as.	-35 as.	-36 as.	Above 36 as.
December, 1947	7	..	1	2	2	2	..	1	10	25	17	4	10	8	4	5	1	..	4	4	..	..	67	5	2	1	1	1
January, 1948	6	..	..	2	2	3	..	..	7	28	27	11	5	10	5	5	1	..	2	1	1	..	77	4	2	..	1	1
February, 1948	9	..	1	2	..	1	..	..	13	27	24	9	5	7	9	9	1	..	1	1	1	2	74	..	..	2	1	1
March, 1948	3	5	1	1	..	1	2	..	6	18	20	8	5	13	1	6	1	1	..	1	1	2	64	2	..	1	..	..
April, 1948	5	1	1	1	..	2	1	..	4	13	13	2	2	8	4	4	1	1	..	1	1	1	36	1	2	..	..	..
May, 1948	1	..	..	..	..	2	..	..	1	6	7	..	1	+	1	1	..	1	..	2	1	..	16	..	..	..	..	..

TABLE No. 61.

Sugarcane prices in season 1948-49.

Month.	No. of factories which paid to growers per ind. of Cane															No. of factories which incurred a Cost per ind. of cane at factory.																		
	Below 24½ as.	24½ as.	25½ as.	26½ as.	27½ as.	28½ as.	29½ as.	30½ as.	31½ as.	32½ as.	Above 32½	Below 24½ as.	24½ as.	25½ as.	26½ as.	27½ as.	28½ as.	29½ as.	30½ as.	31½ as.	32½ as.	Above 32½	Below 24½ as.	24½ as.	25½ as.	26½ as.	27½ as.	28½ as.	29½ as.	30½ as.	31½ as.	32½ as.	Above 32½	
December, 1948	4	2	30	3	1	18	..	..	..	..	..	..	2	3	15	25	14	6	5	9	8	5	1	3	5	5	10	15	18	11	8	31½ as.	32½ as.	Above 32½
January, 1949	5	10	55	..	9	25	..	..	..	..	..	..	5	4	15	19	11	6	5	18	11	2	9	3	5	5	10	15	15	11	11	31½ as.	32½ as.	Above 32½
February, 1949	5	12	54	2	6	26	..	..	..	..	..	..	5	4	15	19	19	5	5	10	15	5	8	3	5	5	10	15	17	10	10	31½ as.	32½ as.	Above 32½
March, 1949	5	12	56	1	5	26	..	..	..	..	..	..	5	2	14	21	13	6	7	17	10	7	10	3	5	5	10	15	17	10	10	31½ as.	32½ as.	Above 32½
April, 1949	2	9	29	..	4	9	..	..	..	..	..	..	3	4	7	9	8	3	7	7	5	3	4	3	5	5	10	15	17	10	10	31½ as.	32½ as.	Above 32½

In 1948-49 about 90 per cent. of the growers received between Rs. 1-9-6 to 1-10-6 and Rs. 1-12-6 to 1-13-6 per md. of cane and 10 per cent between 1-8-0 to 1-9-6. About 50 per cent. of the factories incurred a cost varying between Rs. 1-10-0 to 1-12-0 and about 45 per cent of the factories incurred a cost varying between Rs. 1-12-0 to 2-0-0.

### Cane Cess.

### U. P. AND BIHAR.

The Provincial Govts. have been levying a cess on the amount of cane crushed by sugar factories since 1938-39 in order to raise a revenue for the purpose of cane development, although only a part of the total annual revenue which is of the order of about Rs. 3 crores have been spent on the development work. The rates of cane cess from 1938-39 to 1948-49 are shown in Table No. 62.

**TABLE NO. 62.**  
Rate of Cess per md. of Cane

Year	Rs	as.	p.	
1938-39	0	0	6	
1939-40	0	0	6	
1940-41	(a) 0	0	9	(0 0 3 for Cess
	(b) 0	1	0	0 0 6 For Repayment of loan)
				(0 0 6 for Cess
				0 0 6 Repayment of excise loan)
1941-42	0	0	6	
1942-43	0	0	6	
1943-44	0	1	0	
1944-45	0	1	0	
1946-47	0	1	0	
1947-48	0	3	0	for U. P.
	0	2	0	for Bihar
1948-49	0	3	0	

### BOMBAY.

The Bombay Legislative Assembly, on October 16, passed a Government Bill enabling a cess to be levied on sugarcane. The cess, according to a Government communique, is intended to be establish a fund called the Provincial Sugarcane Cess Fund for the purpose of developing and improving the cultivation, growth and marketing of sugar cane and other crops for the development of the sugar Industry, and for the improvement and development of agriculture in general.

Briefly the main provisions of the Bill are :—

The proposed levy of cess is at a rate not exceeding As 6 per Bengal maund of sugarcane entering a local area. Every sugar factory will be required to obtain a licence before using sugarcane in factory.

The proceeds of the cess and the fees recovered under the proposed Act will first be credited to the revenue of the province, and after deduction of the expenses of collection and recovery, will be shown in a separate fund called the Provincial Sugarcane Cess Fund.

While the actual rate of levy will be notified by the Government later, a Cess at the rate of As. 3 per maund of sugarcane will be recovered from factories for the period between June, 1,1948 and the date of notification.

It is expected that the levy of cane cess will bring to Govt. a revenue of Rs. 50 to 100 lakhs. The Govt. of Bombay will also subsidise research to the extent of Rs.2 lakhs of this fund.

## SUGAR.

## Price of Sugar in Retrospect.

The year 1936-37 was unique in so far as it was the first year when the country became self-sufficient in sugar and import of foreign sugar dwindled to 22,000 tons from 8,08,688 tons in 1930-31. In fact sugar was cheapest in that year in the country. The monthly sugar prices were as under:—

Month							Rs.	as.	p.
November	1936	..	..	..	..	..	7	10	4
December	1936	..	..	..	..	..	7	1	7
January	1937	..	..	..	..	..	6	11	11
February	"	..	..	..	..	..	6	7	7
March	"	..	..	..	..	..	6	7	11
April	"	..	..	..	..	..	6	7	0
May	"	..	..	..	..	..	6	2	0
June	"	..	..	..	..	..	6	2	0
July	"	..	..	..	..	..	6	6	0
August	"	..	..	..	..	..	6	7	0
September	"	..	..	..	..	..	6	7	0
October	"	..	..	..	..	..	6	12	0

The sugar was sold at Rs. 6-2-0 per md. in the months of May and June 1937. owing to over-production of sugar in that year and the consequent free competition between the sugar factories inside the country to sell off the stock as early as possible. The price came fairly near the price of Java Sugar which landed in Calcutta at Rs. 4/- per md. The over-production of sugar and the subsequent raising of the excise duty from Rs. 1-5 per cwt. to Rs. 2/ per cwt in Feb. 1937 reduced the margin of profit of the the millowners. As a result of this a Conference of 92 sugar factories was held for the first time on July 12, 1937 for discussing problems of mutual benefit. The millowners of these factories decided to form a voluntary organisation and the Indian Sugar Syndicate came into being. The Syndicate acquired the stocks of all its members and started forward sales. The Syndicate then fixed the selling period for each factory and released quotas for sales at the fixed prices. Thereafter the Syndicate was given statutory recognition as a result of which membership of the Syndicate was made a condition precedent to granting the licence for crushing.

After the formation of the statutory Syndicate, the U. P. and Bihar Govts. tried to stabilise sugar prices at Rs. 7-10-0 per md. with a corresponding cane price of 0-5-0 per md. They also tried to link every increase of 0-4-0 in the price of sugar per md. with the corresponding increase of three pies in the price of cane per md. If the price of sugar rose to Rs. 9-14-0 per md. the price of sugarcane was to rise at the rate of three pies per md. for every rise of three annas per md. in the price of sugar. The sugar price during 1937-38 and 1938-39 varied from Rs. 6-12-0 to Rs. 9-4-0 and Rs. 9-2-5 to Rs. 12-0-8. respectively.

The year 1939-40 was an eventful one for the sugar Industry in India and particularly in the United Provinces and Bihar. The production of sugar directly from cane in the U. P. and Bihar established a new high record. The main causes of this over production of sugar were an excellent crop, and the high prices that factories paid for cane. Between Nov. 1939 and April 1940 the minimum prices fixed by the Government for cane varied between Rs. 0-8-9 and Rs. 0-10-9 per md. Demand for sugar, on the other hand, was very poor, particularly in the earlier parts of the season. It was due to high prices for sugar, coupled with the expectation in the markets that with factories holding abnormally heavy stocks, prices would ultimately come down, stock went on piling up in the godown of factories. But factories could not lower their prices in tune with market conditions, since minimum selling prices for all grades of sugar had been fixed by Syndicate. Any factory which sold sugar at a price below the minimum prices fixed by the Syndicate was liable to pay damages to the Syndicate.

The Govt. of U. P. and Bihar ultimately put an end to the stalemate by withdrawing recognition from the Syndicate but subsequently, after protracted negotiations between the representatives of the Syndicate and Govt. the Syndicate was re-recognised but subject to certain conditions. The Govt. decided to restrict production during 1940-41 and this had a healthy effect on the market. The price of sugar during 1939-40 ranged between Rs. 8-14-9 to 12-7-6.

During the years 1940-41 and 1941-42 minimum prices of sugar were fixed by the Provincial Govts. The prices of sugar in the markets during these years varied from Rs. 8-15-0 to Rs. 9-10-0 and Rs. 10-1-0 to Rs. 12-8-3 respectively. Towards the latter part of the crushing season 1941-42, control over prices and distribution was instituted by the Central Govt. who fixed the ex-factory price of sugar of C 28 grade at Rs. 11-12-0. During the period 1942-43 to 1946-47 the Central Govt. continued to assume control. The following were the prices of sugar fixed by Govt. during the period of sugar control.

Year	Price					
	Rs. as. p.					
1942-43	..	11 11 0	to	14-0-0		D. 24
1943-44	..	14 13 0	..	..	..	D. 24
1944-45	..	16 4 0	..	..	..	D. 24
1945-46	..	16 4 0	to	16-10-0		D. 24
1946-47	..	20 14 0		(Upto 7th Dec. 1947)		D. 24

### Season 1947-48.

The Govt. of India decided to relax control over price and distribution of sugar from 9th Dec. 1947 and as a result the Sugar Syndicate was entrusted with the task of assuming the distribution of sugar. The U. P. Govt. gave a blank cheque to the Indian Sugar Syndicate for fixing the price of sugar also and accepted the price of sugar viz. Rs. 35-7-0 worked out by the Syndicate, the details of which are given below :—

#### BREAK-UP OF PRICE AS FIXED FOR SEASON 1947-48.

U. P.—Season 1947-48.

	Rs.	a.	p.
1. Cost of Cane at Rs. 1/4/0 per Md.	..	..	12 8 0
2. Cess at -1/- per maund.	..	..	0 10 0
3. Transport of Cane.	..	..	0 2 0
4. Co-operative Societies Commission.	..	..	0 2 3
5. Basic Manufacturing Expenditure.	..	..	2 13 3
6. Excise Duty.	..	..	2 3 3
7. Additional Manufacturing Expenditure.	..	..	3 6 0
8. Extra Cost of Insurance.	..	..	0 1 3
9. Profit at 10% on Block Capital.	..	..	1 4 3
10. Special Allowance for Reserve.	..	..	0 4 0

23 6 3

11. Deduct return from molasses.

0 1 6

23 4 9

Sugar price for U. P. would, therefore, work out as :—

(a) As accepted by the Sugar Commission the Sugar Price at Rs. 1/4/-

Cane price as per R. C. S. Scale.

23 4 9

(b) Compensation for the Award dated 26-6-47.

0 3 0

(c) Lickely increase on account of Nimbkar Committee's findings :—

-1/6 for increase up to Rs. 45/-

-1/6 for the Standardization-

0 8 0

(d) Increased Cane Price by -12/- per maund.

7 8 0

(e) Profit margin in addition to that allowed in price calculation.

2 0 0

(f) Difference between R. C. S. Scale and the Syndicate's Scale.

0 5 4

(g) Additional Cess at -2/- per maund.

1 4 0

U. P. Price.

35 1 1

For Bihar the price would be more by Rs. 2/10/-, minus Rs. 1/4/- being the U. P.'s additional cost for Cess.

1 6 0

Bihar Price.

36 7 1

For U. P. & Bihar comes to

35 7 0



The calculation given above are based on a cane price of Rs. 2/- per md. which the Syndicate members decided to pay in order to attract large supplies of cane to Sugar factories. In addition to 10 per cent profit on block capital, the U. P. Govt. agreed to give Rs. 2/- as additional profit to the industry to compensate for the bad condition of the industry during the previous three years. According to the Syndicate the basic scale of manufacturing cost prepared by R. C. Srivastava on which the calculations are based every year is outdated and should be replaced by their own. An incidence of Rs. 0-5-3 per md. has therefore been allowed due to this difference.

The fixation of Rs. 35-7-0 as the sugar price for the season 1947-48 has met with vehement criticism both from public, sugar merchants and leading personalities of the sugar world.

### Season 1948-1949.

The price of sugar for the season 1948-49 was fixed at Rs. 28-8-0 for D. 24. This includes Re. 1/- on account of pooling of stocks carried over from the previous season. The stocks amounted to 1.75 lakh tons of sugar. The pooling of old stock of sugar was carried out at an average cost of production and normal profit only (vide the press statement of Shri Keshav Deo Malaviya Minister for Development and Industries) that is at Rs. 32/- per md. and not Rs. 35-7-0 per md. The effect of the pooling was that the price of the old stock was also reduced to Rs. 28-8-0. But for this pooling the effective pooling price would have been Rs. 27-8-0. The analysis of Rs. 28-8-0 per md. of cost is as follows :

			Rs.	as.	p.
Pooling price with the last year's production	..	..	1	0	0
Price of 10 maunds of cane for producing					
one maund of Sugar (Cane price Rs. 1/10/ per md.	..	..	16	4	0
Provincial Cess (Rate of cess 3 as. per md. of cane)	..	..	1	14	0
Excise duty .. . . .	..	..	2	3	2
Co-operative Societies commission and the average	..	..			
cost of rail transport .. . . .	..	..	0	12	0
Margin of profit allowed .. . . .	..	..	0	14	9
Wages and Salaries bill per md. of sugar produced	..	..	2	12	0
Manufacturing expenses (Excluding Salaries and Wages)	..	..	2	12	0
Total	..	..	28	8	0

### Prices according to quality.

Charts of grade prices ex-factory (exclusive of freight advantage) are given in tables 63-65.

TABLE NO. 63.

## CHART OF GRADE PRICES EX-FACTORY. (EXCLUSIVE OF FREIGHT ADVANTAGE.)

(Basic prices are -5/- below the Chart prices)

Remained in force from 16th December 1948 to 4th Feb. and from 16th Feb. to 23rd June 1949.

	29	28	27	26	25	24	23	22	21
AA.	29 13 0	29 11 0	29 9 6	29 7 6	29 6 0	29 4 0	29 2 6	28 14 6	28 12 6
A.	29 11 0	29 9 0	29 7 6	29 5 6	29 4 0	29 2 0	29 0 6	28 12 0	28 10 0
B.	29 8 6	29 6 6	29 5 0	29 3 0	29 1 6	28 15 6	28 14 0	28 12 0	28 10 0
C.	29 6 6	29 4 6	29 3 0	29 1 6	28 15 6	28 13 6	28 12 0	28 10 6	28 8 6
D.	29 5 0	29 3 0	29 1 6	28 15 6	28 13 6	28 12 0	28 10 6	28 8 6	28 6 6
E.	29 3 6	29 1 6	29 0 0	28 14 0	28 12 6	28 10 6	28 8 6	28 7 0	28 5 0
F.	29 2 6	29 0 6	28 15 0	28 13 0	28 11 6	28 9 6	28 8 0	28 6 0	28 4 0
G.	29 1 6	28 15 6	28 14 0	28 12 0	28 10 6	28 8 6	28 7 0	28 5 0	28 3 0

13. 29 1 0  
 12. 28 14 0  
 11. 28 12 0

TABLE NO. 64

## CHART OF GRADE PRICES EX-FACTORY (EXCLUSIVE OF FREIGHT ADVANTAGE)

(Basic prices are -5/- below the Chart prices)

Remained in force from 5th February 1949 to 15th February 1949.

	29	28	27	26	25	24	23	22
AA.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
A.	30 8 0	30 5 0	30 1 0	29 14 0	29 11 0	29 7 0	29 2 6	—
B.	30 5 0	30 2 0	29 14 0	29 11 0	29 8 0	29 4 0	29 0 6	—
C.	30 3 0	29 15 0	29 11 0	29 8 0	29 5 0	29 2 0	28 14 0	—
D.	30 0 0	29 12 0	29 8 0	29 5 0	29 2 0	28 15 0	28 11 0	—
E.	29 9 0	29 6 0	29 3 0	29 0 0	28 14 0	28 12 0	28 6 0	28 0 0
F.	29 5 0	29 2 6	29 0 0	28 13 6	28 12 0	28 8 0	28 3 0	27 14 0
G.	29 2 0	28 15 6	28 13 0	28 10 0	28 8 0	28 2 0	27 12 0	27 7 0
	28 15 0	28 12 0	28 10 0	28 6 6	28 4 0	27 12 0	27 6 0	27 0 0

13. 28 14 0  
 12. 28 12 0  
 11. 28 8 0

TABLE No. 65.

## CHART OF GRADE PRICES EX-FACTORY OF QUALITIES BELOW E/26.

(Exclusive of Freight Advantage and Additional Excise Duty)

(Basic prices are -/5/- below the chart prices.)

	29	28	27	26	25	24	23	22
AA	—	—	—	—	—	—	—	—
A.	—	—	—	—	—	—	—	—
B.	—	—	—	—	—	—	—	—
C.	—	—	—	—	—	—	28/11/-	28/2/-
D.	—	—	—	—	—	—	28/6/-	28/-/-
E.	—	—	—	—	28/12/-	28/8/-	28/3/-	27/14/-
F.	—	—	—	28/10/-	28/8/-	28/2/-	27/12/-	27/7/-
G.	—	—	28/10/-	28/6/6	28/4/-	27/12/-	27/6/-	27/-/-

These charts have been prepared by the Syndicate and have been in force for different periods of the season 1948-49. The chart given in table No 63 was enforced from 26th Dec. 48 and remained in force upto 4th Feb. 1949. Thereafter the chart given in table No. 64 was enforced but it remained in force upto 15th Feb. only, after which the Syndicate reverted to the previous chart. This chart remained enforced upto 23rd June and thereafter changes in respect of certain grades were made. These changes are embodied in charts given in table No. 65. The basic prices at which the syndicate purchases sugar from its members are /5/- below the prices given in these charts.

**Market Prices.**

Average monthly prices of sugar per md. from Sept. 48 to Aug. 49 for different markets are given in Table No. 66.

TABLE No: 66.  
Average monthly price of sugar per maund.

Market.	Years.	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Kanpur.	1948	—	—	—	—	—	—	—	—	36 14	7 36	9 33	11 5 31 6 4
	1949	33 0	8 31	2 3	4 8	30 14	4 30	13 10	30 13	4 32	1 5 36	2 11	—
Patna.	1948	—	—	—	—	—	—	—	—	38 12	7 39	5 10	39 6 0 36 8 10
	1949	31 14	5 30	2 9	32 13	11 4	32 4	1 32	3 1 33	11 2 38	9 2	—	—
Bombay.	1948	—	—	—	—	—	—	—	—	39 5	3 38	13 6	37 13 4 35 15 11
	1949	32 13	4 34	5 3	36 6	4 33	13 2	33 9	3 33	14 8 35	8 5 38	8 4	—
Calcutta.	1948	—	—	—	—	—	—	—	—	39 5	6 39	8 7	39 0 7 34 0 7
	1949	32 11	7 32	6 3	33 4	4 32	12 1	32 7	9 32	7 6 34	6 7 37	7 9	—

The prices of sugar ruling in different markets during the period Sept. '48 to Aug. '49 include the following items.

- (i) Price of sugar (Rs. 28-8-for D. 24).
- (ii) Freight advantage.
- (iii) Sugar export allowance of as - /4 /- charged by the syndicate.
- (iv) Bank Commission charged by factories.
- (v) Other incidental charges.

From March, 1949 the prices were raised by nine annas per md. due to increase in the Central excise duty.

In all the markets the price of sugar ruled high in the months of Sept. and Oct. 1948 but suddenly dropped in the subsequent months till July. The prices rose to Rs. 36-2-11 in Kanpur, Rs. 38-9-2 in Patna, Rs. 38-8-4 in Bombay and Rs. 37-7-9 in Calcutta.

The retail price of sugar went up to Re. 1. to 1-8-0 and even 1-12-0 and Rs. 2/ at some places.

### **Freeze order.**

In order to curb this abnormal rise in the sugar price the U. P. Govt. issued a Freeze order on August 26, 1949 which runs as follows:—

The sale of sugar should be at a price based on Rs 29-1-0 per md. (inclusive of additional excise) for D. 24. grade in the usual packing and loaded in wagons. The grade differential in the price of each grade on this basis should be the same as that which was in force, according to the official Indian Sugar Syndicate price ruling between the commencement of the crushing season in 1947-48 and the commencement of the crushing season in 1948-49. The order is to come into force immediately.

The U. P. Govt. asked producers of sugar to declare the stocks held by them on August 26 to the District Magistrates and sell these stocks only to persons or organisations nominated by the Govt.

As a result of this order sugar stocks in mills at Barielly, Pilibhit, Naini Tal, Moradabad, Etah, Kheri, Sitapur and Shahjahanpur were frozen.

### **Retail Prices of sugar fixed in U. P.**

A press note issued from Lucknow on Sept. 26 says:—

The stocks of sugar mill will now be sold in retail at price not exceeding:—

(1) Annas 13 and pies 3 per seer in all regulated towns as defined in clause 2 of the U. P. Food Control order 1949, as amended from time to time and in all areas within municipal cantonment, notified town areas, as may be declared from time to time and (ii) annas 13 and pies 9 in rural areas i.e. areas other than those mentioned above and areas in hill districts (iii) the retail rate of sale of sugar in hill districts has also been raised by pies 3 per seer.

### **Gur and Khandsari Prices.**

Monthly average price of gur per md. from Jan. 1947 to Aug. 1949 and average yearly price of Khandsari in U. P. from 1935 to 1949 are given in tables 67 and 68.

TABLE No. 67  
Monthly average price of gur per md.

Name of the Market	Year	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
		Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
Madras ..	1947	15 10 0	15 10 0	15 10 0	15 10 0	15 10 0	15 10 0	15 10 0	15 10 0	15 10 0	15 10 0	15 10 0	12 5 10
	1948	10 1 1	9 5 0	7 1 6	8 11 6	9 12 7	11 4 6	12 0 10	11 10 0	11 4 2	11 8 0	11 12 0	12 5 9
	1949	12 8 10	13 11 6	14 14 6	15 8 0	15 15 3	19 7 1	22 8 0	21 2 8	—	—	—	—
Muzaffarnagar	1947	12 5 3	12 13 3	12 6 0	12 8 0	—	—	—	—	—	13 12 0	14 12 0	15 9 0
	1948	10 7 5	9 7 6	10 15 6	12 13 9	13 6 0	14 14 0	15 6 5	15 8 0	15 7 2	13 1 3	12 12 4	11 9 0
	1949	10 4 4	11 14 9	13 6 10	14 9 3	15 0 10	16 0 3	17 4 5	19 15 4	—	—	—	—
Bhagalpur ..	1947	18 8 0	18 8 0	17 6 0	16 14 5	16 9 0	16 0 0	16 7 0	16 12 10	16 8 0	17 0 0	18 0 0	17 2 0
	1948	15 5 7	11 10 0	11 0 0	9 14 8	12 0 0	13 0 0	13 4 0	13 2 8	13 11 2	—	13 12 0	14 0 0
	1949	—	10 8 0	11 10 8	10 14 0	11 8 0	12 0 0	12 8 0	14 0 0	—	—	—	—
Ahmedabad	1947	17 8 0	18 0 0	18 0 0	18 0 0	18 0 0	18 0 0	18 0 0	18 0 0	18 0 0	18 0 0	18 0 0	18 0 0
	1948	—	—	11 12 0	11 8 0	11 15 2	11 8 6	11 12 9	13 10 0	13 1 0	—	12 11 3	13 5 10
	1949	—	12 8 0	13 13 4	14 4 9	15 5 2	17 0 0	18 8 0	21 4 0	—	—	—	—
Lyalpur ..	1947	12 15 0	22 6 8	16 7 0	17 0 0	16 2 8	17 3 4	18 13 0	19 0 0	—	—	—	—
	1948	—	—	—	—	—	—	—	—	—	—	—	—
	1949	—	—	—	—	—	—	—	—	—	—	—	—
Dacca ..	1947	38 10 0	31 0 0	34 0 0	30 12 0	31 8 0	33 12 0	34 0 0	36 0 0	39 8 0	—	—	—
	1948	—	—	—	—	—	—	—	—	—	—	—	—
	1949	—	—	—	—	—	—	—	—	—	—	—	—
Meerut ..	1947	—	—	—	—	—	—	—	—	—	—	—	—
	1948	—	—	—	—	—	—	—	—	—	—	—	—
	1949	10 5 0	11 11 7	12 13 4	14 3 7	14 12 8	15 7 2	17 2 0	18 12 6	—	11 14 6	13 1 8	12 5 1

**TABLE No. 68.**  
Average Prices of Khandsari Sugar per md. in U. P.

Year.	Average.	Maximum.	Minimum.
	Rs. as. p.	Rs. as. p.	Rs. as. p.
1935	7 13 0	8 8 0	7 1 0
1936	6 13 0	7 4 0	6 8 0
1937	6 0 0	7 0 0	5 8 0
1938	7 12 0	9 4 0	6 5 0
1939	9 2 0	11 12 0	7 1 0
1940	10 7 0	11 0 0	9 8 0
1941	8 6 0	9 8 0	7 0 0
1942	14 1 0	15 0 0	10 0 0
1943	16 3 0	17 8 0	15 8 0
1944	17 12 0	19 4 0	17 8 0
1945	18 3 0	20 0 0	18 0 0
1946	22 7 0	30 0 0	18 0 0
1947	34 13 0	38 12 0	30 0 0
1948	25 7 0	30 0 0	24 4 0
1949	34 0 0	60 0 0	24 7 0

As result of an increase in sugar price in Aug. '49 there was a simultaneous increase in the price of gur and Khandsari. The price of gur ranging from Rs. 11-10-8 to Rs. 14-14-6 in March rose gradually during the month of April May, June and July and suddenly to Re. 1/- in August. The price of Khandsari ruling at Rs. 24-14-0 in August shot up to Rs. 39-1-0 in September and Rs. 60-11-0 in October.

### THE SEASON 1949-50 U. P.

#### Cane Price.

The U.P. Govt have decided not to reduce the price of sugarcane from Rs. 1-10-0 a maund during 1949-50.

Announcing this, a press note expresses the hope that the decision would encourage the cultivators to supply cane to sugar mills according to the capacity of the mills and that the industrialists would take full advantage of this and produce more sugar this year than what they did ever before.

### MADRAS

Under the provisions of the Madras Sugar Factories Control Act, 1949, the Madras Govt. in a gazette extraordinary issued in this connection have fixed the following scale governing the cane price in the province.

Crushing capacity in Tons.

300  
Above 300 but not exceeding 1200  
Above 1200

Price of Cane per ton.

Rs. 42 0 0  
Rs. 46 12 0  
(Inclusive of freight)  
Rs. 47 4 0  
(Inclusive of freight)

The price fixed is per delivery at the factory and the occupier of the factory is required to pay on demand after delivery.

#### Sugar Price.

A press note from the Agriculture Ministry, Govt of India says :—

“The Govt. of India have decided to fix the statutory maximum, ex-factory price of Rs. 28-8-0 per md. for E 27 grade sugar for the ensuing seasons production. The price of this grade of sugar, which is a more common grade was Rs. 29-5-0 last season.

(a) The price per maund of crystal sugar fixed by Govt. for sale ex-factory according to grade is given in the following table (No. 69).

TABLE No. 69.

	29	28	22	26	25	24	23	22
	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.	Rs. a. p.
AA.	29 10 6	29 7 6	29 4 6	29 1 6	28 14 6	28 10 6	28 6 6	..
A.	29 7 6	29 4 6	29 1 6	28 14 6	28 11 0	28 8 6	28 4 6	..
B.	29 4 6	29 1 6	28 14 6	28 11 0	28 9 6	28 6 6	28 3 6	28 1 6
C.	29 1 6	28 14 6	28 11 0	28 9 6	28 7 6	28 4 6	28 1 6	27 13 6
D.	28 14 6	28 11 0	28 9 6	28 7 6	28 4 6	28 1 6	27 13 6	27 9 6
E.	28 11 0	28 9 6	28 8 0	28 6 0	28 1 6	27 13 6	27 9 6	27 5 6
F.	28 9 6	28 8 0	28 6 0	28 2 6	27 13 6	27 9 6	27 5 6	27 1 6
G.	28 8 0	28 6 0	28 2 6	27 14 6	27 9 6	27 5 6	27 1 6	26 13 6

(b) Price per maund of refined sugar for sale ex-factory according to grade, shall be as given in the table below.

	29	28	27		29	28	27
	Rs. a. p.	Rs. a. p.	Rs. a. p.		Rs. a. p.	Rs. a. p.	Rs. a. p.
AA.	30 3 0	30 1 0	29 15 0	D.	29 11 0	29 9 0	29 7 0
A.	30 1 0	29 15 0	29 13 0	E.	29 10 0	29 8 0	29 6 0
B.	29 15 0	29 13 0	29 11 0	F.	29 9 0	29 7 0	29 5 0
C.	29 13 0	29 11 0	29 9 0	G.	29 8 0	29 6 0	29 4 0

(c) Price per maund of crushed sugar for sale ex-factory according to grade, shall be as given below.

Grade.

Price per maund.

	Rs.	as.	p.
13	..	..	28 8 0
12	..	..	28 5 0
11	..	..	28 1 0

The new price, the press note said is based on minimum cane price in the U. P. which is the same as last season. It has not been found possible to effect a reduction in the cane price with a view to inducing factories to increase the production in the coming season. The Govt. of India have decided to give during the following year, priority for materials and other facilities to factories which show increase in production this year.

As regards control over factory stocks and their distribution to different administration by the Govt. the existing arrangements will continue pending further consideration of alternate arrangement.

## MEASURES TAKEN BY GOVTS. TO STEP UP PRODUCTION

### Refund of Excise Duty.

To minimise sugar production in the coming season, the Govt. of India have decided to give sugar factories a revenue concession in the shape of a lower rate of duty equivalent to about nine annas a maund, the Ministry for Agriculture announced.

This amount, the announcement says, will be refundable to factories whose additional output of sugar during the season 1949-50 exceeds more than 5 per cent production for 1948-49 season and will be in respect of all such additional



Further during the following year, the Govt. of India will give priority for materials such as iron, coal, steel and cement and facilities regarding the maintenance or extension of plants of factories in accordance with the percentage of the excess production on the last season's figures.

### **Rebate on Sugarcane Cess.**

The U. P. Government Press note says :—

In order to offer an inducement for maximisation of production of sugar and to encourage factories, which assist in the realisation of this objective, the provincial Govt. have decided to offer the following concession to the sugar industry in this province.

A rebate of 9 pies per md. of sugarcane cess payable will be allowed to sugar factories in respect of sugar produced by them which is in excess of last year's production by more than 5 per cent. provided that, if a factory is situated in the Meerut, Rohilkhand or the Central range of U. P. it has started crushing sugarcane not later than Nov. 25 and if it is situated in the mid-eastern or eastern range it has started crushing not later than December 10, 1949.

# CHAPTER XIV.

## SUGAR TRADE.

### Foreign Trade.

India has not yet been able to establish any export trade although it has to its advantage a good export market. The main causes are high price of sugar and scanty surplus stocks. The quantity and value of imports, exports and re-exports of sugar and exports of refined and unrefined sugar exclusively by land are given in table Nos. 70-71.

TABLE No. 70

Sugar import and export of India (undivided)

Year	Import.		Export.		Re-export.	
	Quantity (’000 tons)	Value Million (Rs.)	Quantity (’000 tons)	Value Million (Rs.)	Quantity (’000 tons)	Value Million (Rs.)
1914-15	428	98	5	0.881	40	11
1915-16	515	158	4	0.935	11	4
1916-17	440	147	13	2.629	25	9
1917-18	470	150	5	1.534	42	17
1918-19	507	154	12	4.788	40	17
1919-20	409	218	16	5.288	68	36
1920-21	237	170	22	9.511	74	63
1921-22	718	268	6	2.411	32	17
1922-23	442	148	1	0.443	63	26
1923-24	412	148	3	0.952	36	16
1924-25	671	204	1	0.456	22	9
1925-26	733	152	0.6	0.219	16	5
1926-27	827	184	0.6	0.208	12	3
1927-28	726	145	0.8	0.243	20	6
1928-29	869	159	0.6	0.199	10	2
1929-30	940	155	0.3	0.095	7	2
1930-31	901	105	0.5	0.111	3	1
1931-32	516	60	0.2	0.054	6	1.7
1932-33	370	41	0.4	0.070	4	0.5
1933-34	261	27	0.4	0.065	12	0.7
1934-35	222	21	0.4	0.063	3	0.6
1935-36	201	19	0.4	0.061	3	0.5
1936-37	23	2	0.5	0.077	9	1.4
1937-38	13	2	14.3	2.631	2	0.4
1938-39	32	4	6.6	1.519	.05	0.001
1939-40	250	32	0.4	0.137	24	5.5
1940-41	19	—	N.A.	2.720	5	1.6
1941-42	47	—	N.A.	3.178	27	7.0
1942-43	0.563	—	N.A.	10.796	29	10.7
1943-44	0.021	.013	N.A.	4.227	.02	0.13
1944-45	Negligible	.002	6.6	3.155	0	0
1945-46	Negligible	.001	3.6	1.856	0.31	0.2
1946-47	—	—	1.8	0.999	0.28	0.21
1947-48	Negligible	—	4.9	3.711	—	—

TABLE No. 71

Exports by land of refined and unrefined sugar  
during the year 1947-48.

Exported to		Articles	Quantity (Cwt.)
A	Afghanistan	Refined Unrefined Total	34,872
B	Iran	Refined Unrefined Total	— — —
C	Tibet Nepal Sikkim & Bhutan	Refined Unrefined Total	17,247 5,220 22,467
		Total	57,339

**Stocks and Despatches.**

The quantities of sugar in stock at factories and quantities of sugar despatched from factories each month are shown in Tables 72-73.

TABLE No. 72.

Monthly closing stock of Sugar in Central Sugar factories.  
('000 mds.)

		U. P.	Bihar.	Rest of India.	Total Indian Union.
			1946-47		
Nov.	46	553	422	378	1,353
Dec.	46	2,152	549	635	3,336
Jan.	47	5,125	1,666	1,440	7,931
Feb.	47	7,447	2,677	1,722	11,846
March	47	8,691	2,867	2,029	13,857
April	47	8,500	2,492	2,087	13,079
May	47	7,157	2,162	1,760	11,079
June	47	6,776	1,730	1,448	9,954
July	47	5,350	1,171	1,126	7,647
Aug.	47	4,549	1,007	746	6,302
Sept.	47	2,800	617	615	6,032
Oct.	47	2,461	458	288	3,207
			1947-48		
Nov.	47	2,005	331	410	2,746
Dec.	47	3,512	613	745	4,870
Jan.	48	6,049	1,713	1,377	9,139
Feb.	48	8,655	2,817	1,670	13,142
March	48	11,213	3,373	2,091	16,677
April	48	10,484	3,483	2,122	16,089
May	48	10,443	2,756	2,210	15,409
June	48	10,387	2,347	1,499	14,233
July	48	9,523	1,927	1,090	12,640
Aug.	48	7,246	1,825	908	9,979
Sept.	48	5,491	1,334	660	7,485
Oct.	48	4,306	1,050	413	5,769
			1948-49		
Nov.	48	3,586	789	482	4,857
Dec.	48	4,333	795	675	5,803
Jan.	49	5,055	1,076	989	7,120
Feb.	49	8,429	2,706	1,610	12,745
March	49	10,034	3,468	1,765	15,267
April	49	8,030	3,086	1,875	12,991
May	49	7,167	2,386	1,470	11,028
June	49	5,331	1,771	1,006	8,108

TABLE No. 73

Monthly despatches of Sugar from central Sugar factories ('000 mds.)

Year	U.P.	Bihar	Rest of India.	Total Indian Union.
		1946-47		
Nov. 46	910	340	266	1,516
Dec. 46	1,010	230	336	1,576
Jan. 47	1,078	368	435	1,881
Feb. 47	1,115	359	573	2,047
March 47	1,378	425	618	2,421
April 47	1,475	399	521	2,395
May 47	975	278	438	1,691
June 47	834	332	384	1,550
July 47	1,236	418	320	1,970
Aug. 47	888	352	305	1,540
Sept. 47	700	324	209	2,233
Oct. 47	674	175	371	1,120
		1947-48		
Nov. 47	921	164	195	1 280
Dec. 47	493	49	312	854
Jan. 48	1,661	471	661	2,793
Feb. 48	576	246	670	1,492
March 48	804	350	773	1,927
April 48	1,085	238	802	2,125
May 48	1,101	351	605	2,057
June 48	976	339	548	1,863
July 48	1,156	394	474	2,024
Aug. 48	1,822	403	474	2,699
Sept. 48	1,704	399	292	2,395
Oct. 48	1,160	251	421	1,832
		1948-49		
Nov. 48	600	182	342	1,124
Dec. 48	1,385	245	580	2,210
Jan. 49	1,511	311	916	2 738
Feb. 49	1,459	373	1,162	2,994
March 49	2,215	748	1,317	4,280
April 49	1,776	609	743	3,128
May 49	1,658	671	627	2,956
June 49	1,750	402	524	2,676

Stocks with factories at the beginning of 1948-49 season amounted to about 2 lakh tons while stocks in June '49 amounted to only 3 lakh tons as against 5 lakh tons in June '48. The despatches of sugar from factories during Dec. '48 to June 1949 are comparatively higher than those during corresponding period in the previous year. It therefore appears that the authorities concerned with the despatches of sugar did not adopt any control over despatches consistent with the demand in the market with the results that the stocks became depleted after June 1949 and acute scarcity of sugar followed.

### Consumption.

The quantities of sugar available for consumption in India during the years 1939-40 to 1947-48 and the estimated consumptions of factory sugar during the years 1944-45 to 1946-47 are shown in tables Nos. 74-75,

**TABLE No. 74.**  
Sources of supply of Sugar required for Consumption in India (Nov.—Oct.)

Particulars.	1939—40	1940—41	1941—42	1942—43	1943—44	1944—45	1945—46	1946—47	1947—48
<b>INITIAL STOCKS</b>	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons	Tons
(1) In Ports ..	51,000	12,200	20,644	5,361	13,574	5,742	17,900	5,000	6,000
(2) In Principal Inland Markets ..	17,000	24,600	13,100	3,190	4,371	4,882	6,000	4,000	5,000
(3) With Factories ..	28,000	388,824	352,100	91,891	194,165	265,547	83,000	104,000	149,000
<b>PRODUCTION OF SUGAR</b>									
(a) Direct from Cane ..	1,241,700	1,095,400	778,100	1,070,700	1,216,000	953,500	968,000	921,000	10,75,000
(b) Refined from gur ..	26,500	44,700	20,400	7,800	7,654	6,400	13,000	4,000	4,000
(c) Khandasari ..	125,000	200,000	100,000	214,000	130,000	125,000	125,000	105,000	105,000
Imports of Sugar by sea ..	34,903	27,934	23,843	8	14	30	—	—	—
Imports of Sugar by sea into Kathiawar Ports ..	32,743	15,283	6,608	—	—	—	—	—	—
<b>Total Supply</b> ..	1,586,846	1,808,941	1,323,795	1,392,950	1,526,178	1,361,101	1,210,000	1,142,000	1,344,000
<b>CLOSING STOCKS</b>									
(1) In Ports ..	23,127	12,191	45,441	1,001	—	313	—	3,000	6,000
(2) In Principal Inland Markets ..	6,624	588	25,999	6,750	4,561	5,347	—	6,000	1,000
(3) With Factories ..	26,167	25,553	20,156	4,975	7,547	13,320	—	—	—
<b>Total to be deducted</b> ..	483,322	433,176	192,038	164,836	288,279	125,007	165,000	170,000	299,000
<b>Quantity consumed (to the nearest thousand)</b> ..	1,074,000	1,376,000	1,132,000	1,228,000	1,238,000	1,236,000	1,045,000	972,000	1,045,000

TABLE No. 75

Estimated Consumption of factory sugar in the Indian Union.

Provinces and States	1944-45 (Dec.-Nov.)	1945-46 (Dec.-Nov.)	1946-47 (Dec.-Nov.)
	Tons	Tons	Tons
Assam ..	11,700	11,300	13,400
West Bengal ..	54,700	38,700	34,900
Bombay & States ..	210,100	165,400	178,900
C.I. & Gwalior ..	19,900	20,600	22,000
C.P. & States ..	31,900	32,500	32,500
Delhi ..	17,100	16,500	16,400
Hyderabad ..	16,000	18,000	18,000
Jammu & Kashmir ..	5,600	5,700	4,600
Madras & States ..	103,400	98,100	102,600
Orissa ..	7,300	7,000	7,400
Punjab & States ..	52,100	62,100	41,700
Rajputana & Ajmer ..	31,400	34,200	41,200
Merwara ..	..	..	..
Bihar ..	56,700	50,900	48,600
U.P. ..	127,900	113,500	113,900
Indian Union	745,800	674,500	676,000

The quantity of sugar available for consumption during the years 1945-46 to 1947-48 was about a million ton on an average and was expected to go down during 1948-49 because of lower production of white sugar in India. The quantity of white sugar consumed by different provinces and states was about 7.5 lakh tons during 1944-45 and 6.75 lakh tons, both during 1945-46 and 1946-47.

### Per capita Consumption of Sugar and Gur.

Due to paucity of reliable data of sugar and Gur consumption in different provinces and states the per capita consumption of sugar and gur cannot be found. However some estimates of per capita consumption of sugar and gur have been made in respect to 1938-39 to 1941-42 years in the case of sugar and in case of gur for the years 1941 to 1946. The per capita consumption of sugar and gur province-wise are given in tables 76, 77.

TABLE No. 76

Provincewise Per Capita Consumption of Sugar in lbs.

Name of the Province	1938-39	1940-41	1941-42
Bengal ..	5.8	6.6	4.5
Bombay ..	17.0	20.8	19.2
Madras ..	3.4	4.8	4.1
Bihar & Orissa ..	2.8	3.9	3.6
U.P. ..	7.1	9.0	6.4
Punjab ..	11.8	15.3	13.1
C.P. & Berar ..	4.2	6.3	4.9
N.W.F.P. ..	6.2	13.3	11.2
Delhi ..	44.8	53.7	34.2
	6.6	8.5	7.0

TABLE No. 77.

Provincewise Per Capita Consumption of gur in lbs.

		1941	1942	1943	1944
United Provinces	..	49.1	30.1	34.9	40.1
Punjab	..	33.6	29.3	29.4	36.0
Bihar	..	6.2	11.4	5.4	10.4
Bengal	..	15.4	14.1	12.8	15.5
Madras	..	12.7	7.4	8.9	11.3
Bombay	..	23.0	31.7	35.5	40.8
N.W.F.P.	..	2.9	5.2	3.4	3.7
Assam	..	10.5	9.2	10.2	9.7
C.P. & Berar	..	13.3	9.8	10.6	9.6
Sind & Br. Baluchistan	..	14.9	13.9	17.8	16.0
Orissa	..	10.5	9.8	9.9	10.8
Delhi	..	4.9	4.7	4.6	4.5
Mysore	..	9.2	10.3	13.2	11.3
Hyderabad	..	11.1	8.1	8.3	8.2
Rajputana	..	17.0	11.1	11.3	8.9
Central India States	..	3.1	1.5	3.4	3.9
Kashmir	..	1.0	0.6	1.6	1.1
Baroda	..	6.3	10.0	10.7	9.7
All-India	..	19.7	16.1	16.9	19.4

Bombay tops the list in the consumption of both sugar and gur. Punjab comes next in the matter of consumption of sugar while U.P. is second in importance in the consumption of gur. The All India consumption of gur and sugar combined is about 27 lbs.

### Molasses Trade.

The India Sugar Syndicate received the authority of the U. P. Govt. in Feb. 1948 to pool and sell the molasses of factorics as the Sole Distributing Licencee. Every factory sells its production of molasses to the Syndicate and the Syndicate sells in turn by calling tenders. The price of molasses for trade varies between Re. 1/- to Rs. 4/- per md. of which the factory gets only 0.4-9 per md. and the rest goes to a Development Fund found by the Govt. The Govt. intends to use these funds for the benefit of labour, research or any other side-industry. Molasses are sold by the Syndicate to distillers at 0.3-6 per md. fixed by the Govt.

## CHAPTER XV

### MARKETING AND DISTRIBUTION.

#### (a) Activities of the Indian Sugar Syndicate during period prior to Reimposition of Control.

The Indian Sugar Syndicate as an organisation of U. P. and Bihar, continued to distribute quotas of sugar to its members and it may be said that in the year 1949, the Syndicate started the process by attending a conference with the Railway Board at Delhi in March 1949. At this conference it was decided how much of estimated production was to be distributed by the two surplus provinces namely, U. P. and Bihar and how much of railway transport would be necessary for such distribution. The conference was well attended and in arriving at the total estimates of sugar to be conveyed, the Syndicate took into account the likely carry over of 1 lakh tons of sugar which was necessary for filling the gap between the two consecutive seasons. As a result of discussions, it was decided how many wagons daily should be allocated in each of the railway system which now run in the sugar areas in U. P. and Bihar. The programme was for the whole season ending with December 1949.

#### Transport.

After this conference in March 1949, the wagons were allotted to sugar factories according to programme, although in public respects certain sections of the railways had supplied more wagons than the programme warranted. An average of 225 wagons per day were allotted by the Railway Board for movement of sugar from the U. P. and Bihar. The Syndicate announced that if the daily quota was fully utilised by the factories the entire production for the season 1948-49 would be distributed in 230 days from the start leaving a carry over of one lakh tons of sugar to bridge the gulf between the season 1948-49 and the next. The Syndicate expected that if the programme drawn up by the railways in consultation with the Syndicate was adhered to, no market in India would remain without sugar or show a tendency to degenerate into a black-market. In planning for sugar movement, the Railway Board avoided not only all cross haulage, but also more than one transshipment point. Besides, they took into account the possible consumption at the destinations concerned. 225 wagons per day allotted for the purpose were to be divided as follows :

O. T. Railway	..	..	175	wagons
E. I. "	..	..	27.5	"
E. P. "	..	..	19	"
Other Railways	..	..	3.5	"
				<hr/>
225 wagons per day				

In order that wagons supplied may not return empty for lack of despatching instructions from buyers the Syndicate had hired godowns in four or five large consuming centres which could be utilised for stocking sugar. Mills were permitted to despatch sugar to their own godowns in consuming areas which could be sold later when required. The Government had also agreed to the running of special trains for single destinations which can be applied for by the factories who had despatching instructions to that extent.



### Zoning Scheme Introduced.

In the interest of rationalisation and to eliminate cross and uneconomical hauls of traffic and to save several transshipments en route, the Railways cut down some of the areas to which the factories were previously accustomed to send sugar. The wagons allotted for the despatches of sugar were spread out evenly for the remaining part of the season. Fresh sales were consequently partly hindered.

A chart was issued by the Ministry of Transport, Govt. of India, in April 1949 showing the names of the factories, quotas allotted to each group and the territories covered by the different zones to which their relative consignments could be despatched. The summary of the Chart is shown below :—

Railway District	No. of Factories	Daily wagons required	Final Destination
<b>O. &amp; T. RAILWAY</b>			
1. Samastipur	16	30	Assam, Bengal Orissa & Bihar
2. Sonapur	28	59	Assam, Bengal C.P. Madras, Bombay etc.
3. Gonda	13	35	Gujrat, Kathiawar, U.P.
4. Izatnagar	7	46	Rajputana, C.I., Kathiwar, Bombay U.P.
<b>E.I. RAILWAY</b>			
1. Moradabad	12	18	Delhi, Rajputana, C.P., East Punjab.
2. Lucknow	3	3	C.P. Hyderabad, U.P.
3. Dinapore	3	3	Bengal & Bihar.
Other RAILWAYS	2	3	East Punjab
E.P. RAILWAY	10	18	Delhi, East Punjab, Kashmir & Bombay
		215	

Certain amendments to the above sugar zonal scheme was made from 16. 8. 1949. This was done with a view to stepping up despatches of sugar to deficit areas such as Bombay, Calcutta, South India etc. The number of daily wagon requirements on the basis of 200 days given in the above chart was changed and revised to 34,55,20 and 35 in case of O.T. Railway ; 16, 3 and 2 in case of E. I. Rly. and 5 and 15 in other two cases. Kathiawar and Orissa zones were subsequently added to the areas of despatches on Sonapur Division. Similar changes were made in the proposed areas (last column) to which sugar was to be transported. In September 1949, another amendment in the zonal chart was made and certain restrictions to destinations were made in Moradabad & Dinapur Divisions.

### Commendable Success to Zonal Scheme.

'Indian Sugar' in its issue of July 1949 has commented that ordinarily lack of transport for sugar begins to worry the factories in July onwards ; their crushing lasts till April or May and their anxiety to dispossess themselves of their stocks and recover their outlay before the next season begins in October, begins to increase. But this year, owing to pre-planning by the railway, transport has been very easy since the month of March 1949. A comparison between despatches in June and July this year and similar months in the previous year showed that more quantities were lifted in 1949. It may be worthy of note that last year nothing was done by the railways for the transport of sugar before the month of August, with the result that large quantities of sugar

got transported only in the later months of the year. The Railway Board may be unhesitatingly congratulated for their planning and programming movements of sugar in the earlier months this year.

A very interesting typed pamphlet was issued by the Deputy Director of Movements, Ministry of Agriculture, located at Gorakhpur. This stated in what manner the O. T. Railway met the situation and quantities cleared on the various sections of the O. T. Railway. Between 1st January 1949 and 30th June 1949, roughly 26,552 wagons were made available on the O. T. Railway, as compared to 15,409 wagons during the corresponding period last year. The manner in which these wagons were given to various railway districts was as below:

Gonda	..	..	4,640	Wagons
Samastipur	..	..	6,965	"
Sonepur	..	..	9,487	"
Izarnagar	..	..	5,460	"
			26,552	Wagons

This brings the average number of wagons loaded to 171 per day, excluding Sundays, which compares very favourably with the daily average of 99 wagons loaded in 1948. Some of the areas in which big increases in despatches have taken place are shown below:

Assam	..	..	308%
Bengal	..	..	41.6%
Bombay Presidency	..	..	82.7%
Bihar	..	..	44.6%
C.P. & Berar	..	..	60%
Gujrat States	..	..	261.1%
Madras	..	..	63.6%
Rajputana	..	..	83.1%
U.P.	..	..	51.7%

There are a number of handicaps to which traffic on the O. T. Railway is exposed. Those are given in the pamphlet referred to above. Similarly there are one or two anomalies in freight rates for instance sugar going to Wadi Bunder, Bombay has special rates but sugar going to Carnac Bridge, Bombay has different rates and when there are two gauges at one station, restriction is placed on one of the two.

### **Wagons for Molasses.**

The number of wagons given for the transport of molasses was inadequate and not judiciously distributed between O. T. Rly and E. I. Rly. Distilleries have not been able to work to capacity because of irregular supply of molasses for which tank wagons in sufficient number on O. T. Rly were not made available.

### **Surplus Wagons not Refused.**

As already said before the railways had in certain cases supplied more wagons than the programme wanted. The Syndicate on its part asked its members not to refuse allotted wagons on any account and it was a fact that excepting about half-a-dozen cases, there was virtually no refusal of factories to load. No reason existed for the factories to hold back the sugar for realising higher prices because the wagons that were supplied to the factories left them fully loaded. The financial position of the factories did not warrant such a holdback.

### **Despatches of Sugar Satisfactory. Syndicate's Version.**

The volume of despatches from U. P. and Bihar factories during the year 1949 is given below. It will be observed that the despatches were very satisfactory during this year compared to the previous year and also helped in increasing the consumption of sugar to as much as 12 lakh tons in the year in question. It was a recognised fact that consumption of sugar will only be normal if sugar was kept constantly supplied and areas were not starved of sugar on any account. This was what happened in the year 1949.

"It was often said that Syndicate should have controlled the despatches of sugar and should have distributed sugar in a more judicious manner so that the entire quantity that the Syndicate had, might be spread over all the twelve months of the year. But one forgets the fact that the Syndicate in sending its despatches of sugar to various destinations was only acting according to the rules laid down by the railways themselves. No wagons were refused and no wagon was left unloaded although they were given on a holiday."

"Besides, the financial position of the factories did not warrant delayed despatches of sugar. According to the Cane Commissioner of U. P. the factories owed to the Government of U. P. about two crores of rupees in the month of June for cane cess alone. Many factories wanted extra quotas to sell in order that they might find the money to pay these arrears to Government. Therefore, the incentive to sell was there in the members of the Syndicate and satisfactory despatches of sugar that one noticed during the year was the result."

"It is a fact that the Indian Sugar Syndicate did not open its own depot except at 3 or 4 places. It could not extend them to other areas nor did it programme for any such elaborate scheme of selling. Although the sugar could be best sold to the consumers at such depots the Syndicate thought it more worthwhile to use the selling Agents of factories and see to the despatches of sugar to the consuming centres."

"The sugar necessary for despatch to consuming centres until November, 1949 was there, but when it was known that Syndicate did not possess the extra that was necessary to fight any bullish tendency, the market started rising sharply. Government got panicky and freezing order over factories was issued. The Government thought that by freezing stocks in factories only they would husband sugar distribution for the consumers. But they never were equipped with any programme for distribution ; nor did they note that at that time much sugar had already gone out of factories hands. In the month of October 1949 the despatches were better but nothing equal to the previous despatches. The Government and the Syndicate knew there was sufficient sugar till new production could come in. But unfortunately there was no programme and no planning for sugar distribution."

After the 2nd September 1949, control has been assumed over sugar by the Central Government from this date onwards, despatches of sugar from factories take place on orders from whatever Central Agency, the Government might appoint to distribute sugar in the Indian Union.

## Monthly Despatches of Member Factories during 1949.

(All figures in tons)

Months.	Quantity (Tons)
January 1949	53,530 "
February "	117,291 "
March "	95,295 "
April "	103,543 "
May "	92,852 "
June "	84,227 "
July "	98,558 "
August "	121,423 "
September "	19,318 "
October "	47,569 "
November "	30,973 "
December "	N. A. "

(Source :—Indian Sugar Syndicate Ltd.)

### MERCHANTS' CRITICISM OF SUGAR SYNDICATE

#### WITHDRAWAL OF GOVT. RECOGNITION URGED

Urging the Government to withdraw the recognition accorded to the Indian Sugar Syndicate the General Secretary of the Kanpur Sugar Merchants' Association in a statement on May 14, 1949 accused the Syndicate of trying to maintain the prices at a high level. He also justified the claim of Bihar factories for compensation from the Syndicate and said that the sugar price of Rs. 28/8/0 for 24 D was not only the pooled price of U. P. and Bihar but also included loss on 1.75 lakh tons of sugar which had remained in stock on December 2, 1948 in the mills. He said that it was the duty of the Syndicate to adjust this according to the spirit in which the pooling price was fixed.

#### BOMBAY MERCHANTS ASSOCIATION ACCUSES THE SYNDICATE

The President of the Bombay Sugar Merchants' Association has explained how public was exploited by the monopoly of the Syndicate which sells sugar at any price it likes.

**Firstly**, some of the factory owners were stamping higher grades on the bags than what they were and thus made an extra profit of about 25 to 50 lacs of rupees.

**Secondly**, The Syndicate was not legally bound to sell sugar at the basic prices fixed by the Government and the member factories were selling the sugar bags at Rs. 2 to Rs. 25 higher than the basic price.

**Thirdly**, The Syndicate has invented new method of charging higher price by way of "freight advantage" which comes to an average of about 4 annas a md. The freight is paid by the merchants and is pocketed by the Syndicate's member factories.

**Fourthly**, The Syndicate has adopted a method of "Quota System" which helps in creating artificial scarcity and thereby getting higher prices. When the Railway authorities came to know of this, they issued a Press Note that the wagons were lying idle as quotas were not issued.

**Fifthly**, some of the mills were charging higher price but issuing bills of the lower price, pocketing the balance in cash. This amount come to at least 50 lacs of

rupees before April 1949. Merchants so long as they are in trade have to submit to such unscrupulous tactics. Mill-owners are also using Benami names in such transactions. This method, has compelled the merchants to sell at higher prices because of enhanced purchase rate. By such methods, the Income-Tax Department and the shareholders are put to heavy losses. This makes it very difficult for the Tariff Board to investigate the actual profits earned by them. Some of the mills have even created benami or subsidiary company to hide their ill-gotten profits.

When the price of cane, wages and sugar rates were fixed by the Government, there was no necessity for the existence for the Syndicate. But 12 years have already passed since the formation of the Syndicate and that time has now come to withdraw recognition to such a monopolistic body. Let the Government watch the developments for two years after its abolition. The Syndicate members at present manufacture 70 percent of the total production of India and one fails to understand as to why our own Government was not paying proper attention to this problem.

### **SYNDICATE'S INSTRUCTIONS IGNORED BY FACTORIES**

The President of the Bengal Sugar Merchants Association has revealed during his presidential address to the sixth annual conference of Bengal Sugar Merchants that the factories were not fully inclined to obey and or to follow strictly the directions of the Syndicate in fairness to the trade. Several of the factories were reported to be following their usual practices of not sticking to the rotations of despatch and marking of grades on the bags, at least one grade higher the actuals. No doubt the Syndicate had deputed their Branch Manager, in Calcutta to take out samples from the sugar bags that may be under complaint in Calcutta (most of the samples were found by him to be one grade lower than the factories grading,) but this alone was not sufficient in eradicating this malpractice, unless drastic penalties were not imposed.

### **SYNDICATE LOOKS TO SELF INTEREST**

The Syndicate too was not prepared to move an inch where their self interest was concerned; for instance, they would not give an inch on account of the "freight advantage" fixed by them. Virtually this freight advantage has turned to a freight disadvantage.

Factories were no longer sticking to the prescribed Syndicate prices but were selling at prices higher to the prescribed prices just according to their own convenience. From the point of view of the consumers, sugar prices can only be brought down if an open competition amongst the factories prevail and that is only possible by the breaking up of the Indian Sugar Syndicate. The merchants should make a move that if at all the Syndicate is allowed to function, they should fix up a maximum price for the sugar instead of a minimum price which only helps to raise the sugar prices. There are various difficulties to the trade vis-a-vis the Indian Sugar Syndicate and the factories.

The several of the factories were using inferior gunny bags and also doing faulty stitchings but by the introduction of the Railway Risk Freight this is being minimised.

### **KANPUR SUGAR MERCHANTS' CHARGE AGAINST SYNDICATE**

"The Sugar Syndicate has tried to produce less sugar during the current year so that it may be possible for it to maintain the prices at high level and to get maximum benefit out of minimum quantity produced. The merchants have said that the price of sugar have gone over and above Government price by Rs. 2/- to Rs. 3/- per md. This was due partly to low production and partly to slow despatches, which were also controlled by the Syndicate.

In the beginning of the year, it was considered that there will be huge carry over, based only on a normal production, which the Syndicate has turned down by its action into a deficit year for its own benefit. In the opinion of the Merchants Association the Syndicate members have earned  $2\frac{1}{2}$  crores of rupees over and above what was due to them on the basis of minimum prices fixed by the Government, which themselves were based on the working of most uneconomic units. They were thus making more than double of their legitimate profits. The merchants strongly urged the lifting of ban on import of foreign sugar.

After the decontrol of sugar, the prices showed a downward tendency until June 1949 when the Syndicate after a hard struggle of one year and a half succeeded in its attempt to raise the price which have gone above the fixed rate by Rs. 4-8-0 per ind. If the Syndicate were not in the field, the price must have gone down considerably by forces of supply and demand, the past experience has shown that neither the Syndicate nor the statutory control can reduce the price of sugar.

### **NARANG BLAMES MERCHANTS FOR RISE IN PRICES**

Shri D. R. Narang, Chairman of the Indian Sugar Syndicate, refuted the allegations of the merchant that the Syndicate has produced less in order to maintain high price. He said that price went up because the dealer thought that there was going to be shortage of sugar and the Syndicate has no sufficient stocks in hand to control the market. The Syndicate factories were prepared to give sugar at Syndicate prices provided merchants and other small dealers were prepared to give guarantee that sugar will reach the consumer at Syndicate prices. He also characterised the charge that manufacturers had imposed one sided-terms on buyers as wholly untrue. The contract form was prepared in consultation with the merchants after a great consideration.

### **SUGAR SYNDICATE HAS OUTLIVED ITS UTILITY**

In the opinion of Thakur Phool Singh M. L. A., a member of the Joint Sugar Control Board, representing cane growers, the Sugar Syndicate has outlived its utility. It was due to the existence of the Sugar Syndicate that the sale of even the worst quality of sugar, containing all sorts of impurities, was facilitated before the Syndicate released the next quota. Even the best supporter of the Syndicate will have to admit that it has failed to maintain reasonable price level. It was being subjected to similar criticism in the handling of molasses. There was, therefore no justification for its continuance. The profits due to the abnormal rise of sugar price have been amply shared by the Syndicate members.

### **TARIFF BOARD HOLDS INQUIRY INTO THE WORKING OF SYNDICATE**

The Government of India had asked the Tariff Board to enquire into the affairs, and constitution of the Sugar Syndicate and report whether there was need for a Syndicate at all and whether the constitution of the Syndicate should be amended. The Board visited Kanpur in the first week of November 1949 and took the evidence of the various interests which had already been discussed in Chapter X of this Manual. Giving evidence before the Tariff Board, the representatives of the Syndicate pointed out that it had served a useful purpose by its existence in maintaining the prices of sugar at an economic level. In the changed circumstances, when there was shortage of sugar, they would revise their policy and amend their articles of association with a view to ensuring that the maximum prices fixed for sugar were not exceeded.

The Tariff Board submitted their report on the working of the Syndicate in

## **ALL-INDIA SUGAR MARKETING ORGANISATION**

During the course of inquiry into the affairs of the Syndicate, many representatives of producers as well as trade suggested to the Board to set up an alternative organisation for the distribution of sugar on an All-India basis. The Syndicate representative suggested that Syndicate itself may be made an All-India organisation representing various interests. The South India Sugar Mills Association and the Director, Indian Institute of Sugar Technology also favoured the idea of All-India sugar marketing organisation.

## **SYNDICATE MODIFIES ITS ARTICLES OF ASSOCIATION**

At a meeting of the Board of Directors held on 28th and 29th December 1949, the general body of the Syndicate adopted a resolution covering action against those selling sugar at higher prices. The present position was that any member factory of the Syndicate could sell sugar at higher price than those fixed by the Syndicate and appropriate to itself the extra income. It was not an offence at all. On the other hand if a mill sold sugar at a lower price it was an offence and factory was liable to pay damages to the Syndicate for selling sugar at lower price. As now the case was quite reverse, the Syndicate made a provision for such exercise of power by a resolution authorising the Sugar Syndicate to take action against any member factory and levy damages from those members who sold sugar above the rates fixed by the Syndicate. Not only the difference between the higher price at which sugar was sold and the Syndicate price would have to be made good to the Syndicate but also further damages at the rate of eight annas per md. will have to be paid to the Syndicate.

The Syndicate also confirmed its resolution for terminating the services of all those Syndicate employees whose services were not needed in view of restricted function of the Syndicate since the reimposition of control.

## **(B) SYNDICATE FACES BREAK UP U. P. AND BIHAR MILLS' CONTROVERSY**

On April 25th, 1949 at its annual general meeting, the Bihar Sugar Mills Association adopted a resolution moved by the Chairman, Mr. R. L. Nopany that it was the Association's considered opinion that a separate selling organisation was an absolute and immediate necessity and that therefore, the Association be suitably reconstituted to take up the sale of sugar and its products. Earlier on April 23rd 1949 the Bihar Government had notified an amendment to the Bihar Sugar Controls Rules which would enable the Bihar mills to secede from the Indian Sugar Syndicate and form any other selling organisations recognised by the Government. The chairman detailed at length the case for separation of the Bihar industry's affairs from that of the U. P. Mr. Nopany felt that the steep fall in the production of sugar and the gradual deterioration of cane yields and indiscipline of labour, were all due to linking of Bihar factories with U. P. in all matters bearing on the sugar industry. Both in regard to price of cane and sugar, the two vital issues facing the industry, the U. P. interests have been dominating to the serious detriment of the industry in Bihar. He made a strong plea for tackling the problem of Bihar factories separately from U. P.

'Notwithstanding the strenuous efforts made by the Bihar factories, the cane prices throughout the control period were fixed at a level that did not pay the cane grower in Bihar to deliver his cane to the factories. It was more profitable for him to make gur.

### **SUGAR PRICE AND LABOUR**

Likewise in the matter of sugar also the factories in Bihar have been suffering by their association with the U. P. The sugar prices fixed throughout the control period proved to be very uneconomical for Bihar. Throughout the period of 1943 to 1947 the factories in Bihar had to incur more losses than by factories in the U. P. Similarly in matter of labour, the factories in Bihar were required to grant all those concessions and amenities which the factories in U. P. were granting notwithstanding the fact that Bihar mills were not consulted at the time of the most of the agreements concluded by the Syndicate with the Federation of U. P. and Bihar Sugar Factories Workers.

After decontrol, another, equally serious disadvantage in the matter of sales was becoming apparent. Although the Bihar factories were in a position to dispose of their production, they could not do so under the existing rules of the Syndicate.

Bihar mills believed that they could find an easy outlet in the Calcutta market which is close to them and at rates cheaper than those fixed at present. Their move seemed to have been encouraged by the recent amendment of Bihar Sugar Control Act. The producers in Bihar were worried by the fact that the factories in Bombay and other provinces were able to dispose of their sugar much earlier than the U. P. and Bihar factories so their capital has to wait for a longer period for its return. This was due to Bihar being linked up with U. P. in all sugar matters.

The U. P. Government might not accept the above since the breaking of the joint control may prove harmful to the sugar industry.



## BIHAR'S CASE

According to a Memorandum prepared by the Bihar Sugar Mills Association the facts of the case of Bihar were that the pool price of Rs. 28/8/- for D24 grade fixed by the Government of India in consultation with the sugar Syndicate was arrived at by pooling the production of Bihar and the U.P. first, and then pooling these prices with those of the existing stocks. In pooling the stocks of the U. P. the cost of production of the U. P. was only Rs. 27-8-0 and it was pooled again with those of Bihar to arrive at Rs. 27/11/7. This price was further pooled with the existing stocks at the rate of Rs. 32 to arrive at the final pooled price of Rs. 28/8/0 for D 24 grade. It was agreed by the Chairman of the Syndicate that the Joint Control Board had accepted the principle of pooling of prices of both the provinces, as also the pooled price of Rs. 28-8-0. It was also agreed by convention rather than by anything else that the U. P. should compensate Bihar for its high cost of production to the extent of As. 3-7 being the difference between the price of U. P. Sugar and the (first) pooled price of the sugar of the U. P. and Bihar. It was the contention of the Bihar mills that they should be paid this difference as per arrangement and this was only the extra margin from the U. P. that they were claiming and which has been provided to them in the pooled price by the Government of India because of the Syndicate's assurance to pool the production of the two provinces. The claims of the Bihar Mills may amount to Rs. 40 lacs from pooling of the prices of sugar.

## SYNDICATE'S PRESIDENT DIFFER

Mr. D. R. Narang, the President of the Syndicate, explained the reasons for the hitch over subsidy and said that the deadlock had occurred over the question of subsidy Bihar demanded from U. P. During 1947-48 season, sugar prices in U. P. should have been Rs. 35/1/0 but it was fixed at Rs. 35-7-0 so that Bihar could get its share of six annas per maund on 6 lac tons produced in U. P. during that year. The cost of Production in Bihar was higher due to crushing season being shorter there. For this reason Bihar had to be subsidised and no objection had been raised against it. But had of its own accord did not claim the six-anna subsidy. There was, however, a hitch over subsidy for the year 1948-49 as Bihar demanded four to five annas per maund over U. P.'s production. The amount will come to Rs. 40 lacs. Mr. Narang pointed out that there appeared to be some confusion on this point. The U. P. factories were given to understand by the U. P. Government as well as by the Sugar Syndicate Board that they would not be asked to pay any share to Bihar as there was no margin of profit left at Rs. 28/8/0 which was the price fixed for D-24 grade. Later, this price was raised to Rs. 29/- for E. 27 quality and of this four annas were to go to the Syndicate for its expenses and to subsidise exports. Mr. Narang said that it was wrong for anybody to feel that U. P. dominated in the Syndicate. So far U. P. had never taken advantage of its majority.

If the parting of ways did take place between the U. P. and Bihar mills, the consumer would not benefit for it envisaged that Bihar must sell its product at a higher price.

## SYNDICATE'S REPLY

The Syndicate has maintained on the contrary that the price of Rs. 28-8-0 was not the pooled price and that such was fixed only for the U. P. factories. It was its view that the Government of India while accepting the recommendations of the Joint Control Board in this behalf, applied a lump-sum reduction of As. 6-9 in respect of certain items, particularly regarding insurance charges etc. Further an additional expenditure of As. 2 per maund of sugar was involved due to the minimum wage of Rs. 55/- whereas price has been calculated on the basis of Rs. 52-8-0 as the minimum wage.

Finally the Syndicate have maintained that the Bihar factories were very much better off than their counterparts in U. P. owing to actual recovery and duration of season in 1948-49 and consequently do not deserve payment of the differential.

### **NEGOTIATION COMMITTEE APPOINTED**

It was decided that the three-man committee (Lala Gurusaran Lal, Shri K. K. Birla and Shri S. P. Jain) appointed by the Bihar Sugar Mills Association will meet a similar committee representing U. P. interest appointed by the Syndicate at Nainital on June 16, 1949 to settle claims of Bihar mills. Following the committee's deliberations, the Board of Directors of the Syndicate will also meet at Nainital on June 17 to take the final decision upon which the future of joint marketing control of sugar will depend. Meanwhile Bihar Sugar Mills Association on May 26, 1949 adopted a resolution that they would reconsider the question of defection from the Syndicate on the outcome of the Nainital negotiation.

### **NAINITAL MEETING FAILS TO DECIDE**

The meeting at Nainital on June 16, could not finally decide anything and left things very much where they were. The two out of three representatives from Bihar could not attend the meeting as the same was arranged two days prior to the General Meeting of The Bihar Sugar Mills Association, at Calcutta.

### **BIHAR REPRESENTATIVE'S VIEWS**

The only attending member (Lala Gurusaran Lal) found it possible to attend the meeting. He explained to the Committee that the Syndicate was committed to the principle of pooling of prices and the price of Rs. 29 for E-27 was accordingly accepted by the Syndicate. It was therefore not desirable for U. P. members to grudge to compensate the Bihar factories under the pool. He further impressed upon the Committee that in case the U. P. members finally decided to dishonour their above obligation, it would result in great discontent amongst the Bihar members and unnecessary conflicts between the two sections of the industry in the Syndicate, which was not desirable in the interest of the industry as a whole.

### **U. P. REPRESENTATIVE'S CONTENTION**

Shri S. Suri, the Secretary of the Syndicate read out the relevant portions of the Minutes of the Syndicate's Board of Directors' meetings held on various dates and showed that the Syndicate had made it clear that the ex-factory price of Rs. 28/8/0 as announced by the Government left no margin with the U. P. factories to compensate Bihar factories and that it had informed Bihar Government accordingly. This was further corroborated by the the Syndicate's meeting held at Calcutta on 29th January 1949.

No final decision could be made and it was decided to convey this to the Bihar Sugar Mills Association.

### **BIHAR SUGAR MILLS ASSOCIATION'S REACTIONS**

An extraordinary meeting of the Association was held at Calcutta on 21st June 1949 to consider the above decision of the Nainital meeting and the Bihar members recalled the letter written by Shri D. R. Narang to Shri N. T. Mone, Joint Secretary to the Govt. of India, Ministry of Agriculture wherein Shri Narang had accepted on behalf of the Syndicate the pooling of prices of both the provinces without any reservation, the relevant papers regarding calculations of the pooled price of U. P. and Bihar as well as other correspondence were placed before the meeting to prove the Bihar factories.

The Bihar factories felt strongly that the extra margin allowed to the U. P. factories as a result of pooling with Bihar and to which they have no legitimate claim should be passed on to Bihar factories in lieu of their higher cost of production.

### **BIHAR KISAN LEADER ALSO URGES BREAK**

Swami Sahajanand Saraswati, the Kisan leader suggested to Bihar mills to break away from the Syndicate and to form a separate organisation of their own. He said that the industry cannot grow if it has always to work under some outside pressure which it feels bitterly at every step. He concluded that the very interest of the cane growers demands separation of Bihar factories from those of the U. P. He also appreciated the attitude of Bihar Government for encouraging lead in this matter.

### **DR. SYED MOHMUD ADVICES CAUTION**

The Bihar Development Minister, Dr. Syed Mahmud considered separation a serious matter which must not be hastily pushed forward with. The provincial Government must consider all implications before they would sanction it as it involved several long range considerations, including the prospect of inter-provincial competitions.

### **MR. NARANG HOPEFUL OF SETTLEMENT**

Mr. Narang was hopeful of a settlement of the question which he described as domestic affair. He disclosed that in a communication to him Dr. Syed Mahmud had expressed the view that if U. P. and Bihar parted company, the whole position would be fraught with grave danger. He said that it virtually amounted to U. P. members being against U. P. members because some of the millowners owned a number of factories in both the provinces. The biggest section of the Bihar's sugar industry, namely, the Beggs group of five factories have remained staunch followers of the Syndicate.

### **PRESENT POSITION**

The dispute between the U. P. and Bihar sugar factories should be capable of amicable settlement and it has arisen partly because of personal and partly economic reasons. That the U. P. interests predominate is partly true because of the fact that about two thirds of the factories are situated in U. P. But that Bihar interests are not neglected should be apparent from the arrangement whereby U. P. factories actually subsidise Bihar factories to the extent of several lakhs of rupees a year so as to maintain parity between the cost of production and the pool price of sugar ultimately marketed through the Indian Sugar Syndicate. It has also been seen that Bihar Directors of the Syndicate have lately been showing no marked desire to attend the meetings of the Board of Directors.

The U. P. Government is naturally watching these developments with interest and the attitude of Bihar Government appears to be averse to the break up without mature considerations but it would be unwilling to coerce its sugar industry into taking any particular action. But in our opinion, Bihar possibly stands in greater need of joint organisation than the U. P. Bihar was the first to pass the necessary legislation before the Syndicate could be set up. Should the parting of ways come, there must inevitably be an intense price cutting competition between the U. P. and Bihar as the "Daily Statesman" thinks.

In this connection the "Commerce" Bombay wrote as follows in its issue dated 1st October, 1949,

It would appear that there is some justification for Bihar's claim. Both the U. P. and Bihar have so far been associated actively in jointly furthering their interests and as part of its price, as it were, for such beneficial association, which resulted in the direct control and dictation of all India policy, the U. P. agreed to give its junior partner a little assistance. To deny such at this juncture, and that too on the ground that the Bihar industry does not deserve that differential as it was better off last year owing to actual recovery and duration, than its U. P. counterpart, when it was positively agreed, as was pointed by Dr. Syed Mahmud that this principle of calculating on actuals was not the accepted practice in the past and could not now be introduced, is rather surprising. The inevitable result would be the disownment of allegiance to the Indian Sugar Syndicate by Bihar factories which have no sugar interests in the U. P. Perhaps the fact that such has already taken place might have motivated the U. P. interests' attitude in denying such little assistance at this juncture. Whatever the real facts, there is no denying the fact that one consequence of this unhappy episode is that the strength that each drew from the other hitherto exists no more. And to this extent, the present rift cannot but be regretted by all the sugar interests.

## CHAPTER XVI.

### SUGAR CRISIS AND GOVERNMENT CONTROL

#### A—Sugar Crisis.

After the month of June 1949, the prices of sugar started going up and within the two months of July and August the market price increased to about Rs. 40/- per md. i.e a rise of 20 to 25 per cent over the price prevailing in May-June. The ex-factory price fixed by the Sugar Syndicate was only Rs. 29-5-0 for E-27 grade. The industry might not have been fully satisfied with the price fixed but all the same that was the price which the Sugar Syndicate had adopted as its own and had made the basis of their selling price for sugar. The industry had come to an understanding with Government that this rate would be maintained during the year 1949 but this understanding was broken in the month of July 1949 and the factories began to charge premia over and above the fixed price. The following Table No. 78 shows the monthly average price of sugar during the months May-September, 1949

**TABLE No. 78**  
Monthly Average Price of Sugar

Market.	May	June	July	August	September
	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
Ambala	31— 5—0	31— 6—0	31—15—0	37—12—0	42— 0—0
Delhi	32— 5—0	32— 7—0	33— 6—0	36—14—0	—
Agra	31— 7—0	31— 8—0	31—15—0	36— 5—0	39— 1—0
Kanpur	30—14—0	30—13—0	32— 1—0	36— 3—0	37— 1—0
Patna	32— 4—0	32— 3—0	33—11—0	38— 9—0	41— 7—0
Calcutta	32— 8—0	32— 8—0	34— 7—0	37— 8—0	36— 0—0
Madras	33— 7—0	33—10—0	34— 4—0	40— 2—0	37—15—0
Bombay	33— 9—0	33—15—0	35— 8—0	38— 8—0	36— 6—0
Average	32— 3—0	32— 5—0	33— 6—0	37—12—0	38— 8—0

From the above it may be seen that the average increase during August-September was Rs. 5/- to 6/- per md. over those of May-June prices. This was really a very big difference. As against this the despatches of sugar from U.P. and Bihar continued to increase from month to month till August 1949 when the stocks were frozen by the Government of India on 2nd September 1949. The rise in sugar prices had its repercussion on *gur* price also which shot up to Rs. 30/- per md. in the month of September 1949. The figures for monthly despatches and sugar and *gur* prices were as in Table No. 79.



### WHAT LED TO RISE IN PRICES.

It is a mystery, yet to be solved, as to who was responsible for cornering this huge stock of sugar despatched from the U. P. and Bihar factories to different market places in India. The reasons given and the views expressed by various interests have been discussed in the following paragraphs.

### SUGAR SYNDICATE'S REASON FOR HIGH PRICES.

According to the Indian Sugar Syndicate the prices of sugar in the country had risen because the supply has fallen short of demand. The total supply of in the 1948-49 season was 12,22,000 tons but the stock on August 1, 1949 was about 2,32,000 tons the rest having been consumed during the earlier seven months.

Shri D. R. Narang attributed the rise in the prices of sugar primarily to speculative activities of the merchants. The heavy despatches of sugar during the few months had resulted in sugar going all over India speedily. Reports from member mills showed the hoarding was not practised by the selling agents of the factories but the despatch figures that were in hand with the Syndicate brought into relief unusual despatches of sugar having gone to frontier stations like Amritsar and Attari. Over-concentration of sugar as compared to the previous year on the West Pakistan border led us to think that sugar has been used as a commodity for profitable smuggling into the other country.

There were repeated negotiations between the Syndicate and the Pakistan authorities but the negotiations led to nothing more than higgling which ultimately ended in no sugar leaving India for Pakistan. What the Government of Pakistan failed to do, the smuggler in his surreptitious way had perhaps achieved and nearly 15,300 tons of sugar had been conveyed to Frontier sections of the Dominion.

Mr. Narang said that the stocks in the hands of merchants and factories were quite sufficient for the current year but it was the speculation about the next year's crush that had ultimately pushed the sugar prices. The dealers thought that there was going to be shortage of sugar and the Syndicate had not sufficient stocks in hand to control the market. Hence they cornered as much stocks as possible and this led to the shooting up of the price.

The developments in the sugar industry during the last few months and especially the criticism of the Syndicate by sugar merchants and the members of the Constituent Assembly, and the Government spokesmen, and a section of the public have been of such a nature as to depict either complete ignorance of correct facts or a will to make the Syndicate a scapegoat in order to conceal their own ignorance and faults. The action of freezing sugar stocks by the Government even without having the courtesy of consulting the Syndicate was the last straw on the camel's back.

When the sugar was frozen, it was selling generally from -/14/- to Re.1/- per seer in the country and after freezing the stocks the price went upto Rs. 1-8-0 per seer. If the blame for that did not lie on the merchants and Government, on whom else could it be fixed, as the Syndicate was then cut off from the picture.

In spite of the warning by the Syndicate that prices would rise if they were forced to release additional quotas quickly, the Government did not heed their advice and the Syndicate was pressed to release quotas too quickly.

### Bombay Sugar Merchants Association's reasons for high prices.

During first eight months of 1949, due to better transport facilities, more sugar had been despatched direct from the factories to far away consuming stations. The invisible stock had thus comparatively increased much more than the

previous year. The visible stocks with the factories had dwindled down to a level unexpected by anybody. Knowing these facts, the Sugar Syndicate started propaganda of reduced and diminishing stocks and further announced their contemplation of exporting sugar to Pakistan. When they saw the desired effect on the prices, the manufacturers began to ask premiums from Rs. 6/- to Rs. 10/- per bag according to quality. The market, having gone up the mills did not tender the contracted goods in sufficient quantities and instead sold them in the market at higher rates. The merchants were forced to pay higher prices to factories in order to replace their sales. These were the main causes of the rise and the blame for it was surely on the manufacturers.

### **Kanpur Sugar Merchants' Explanation.**

Dealers were wrongly blamed for raising sugar prices. As a matter of fact, the industry was responsible for high prices. The very fact that the Chairman of the Sugar Syndicate had assured, on behalf of the industry the supply of sugar at Syndicate's price if the merchants undertook to guarantee to sell the same to consumers at Syndicate prices went to indicate that high prices have been charged by the Syndicate members. The sugar industry, which was enjoying Government protection has tried to exploit the consumers and has made huge profits.

The mercantile community has been trying to supply sugar to consumers at reasonable price and has from time to time kept the Government posted with the activities of the industry to force the prices to go up. The Syndicate on the other hand has tried to produce less sugar during 1948-49 so that it may be possible for it to maintain the prices at a higher level to get maximum benefit out of minimum quantity produced.

In the beginning of the year 1949, it was considered that there will be huge carry over based only on a normal production, which the Syndicate has turned by its action into a deficit year for its own benefit. The members of the Syndicate have earned more than 2½ crores of rupees over and above what was due to them on the basis of minimum prices fixed by the Government which themselves were based on the working of most uneconomic units.

### **Prof Shibbanlal Saksena's views.**

The last year's abnormal rise in the price of sugar was due partly to the manipulation by the Syndicate in the releases of stocks during the first nine months of 1949. The sole aim of the Syndicate is to make the highest profits and so long as the monopoly of the Syndicate is not broken, cheap sugar was an impossibility.

Even according to the Syndicate's figures, which were an under-estimate and did not take into account the stocks which though sold had not been removed from mills, there were 18 lakh bags of sugar in stock on August 16, 1949 that is, 25 per cent of the total production and were quite sufficient to meet the need of the remaining months of the season. The scare that there was shortage of sugar was purely imaginary and had been deliberately created by the Syndicate who alarmed the market by falsely proclaiming that 70 per cent of the stocks were already sold out.

Mr. Narang has confessed that about 1.5 lakh tons of sugar had gone into black-market. He made this declaration to throw the blame on the sugar merchants. But this could deceive nobody. *The stocks which went underground consisted of sales made by the Syndicate to its own agent firms.* It was well known that most of the sugar factories have employed their own men as their sales agents and whenever they removed the stocks from factory godowns of their agents by showing *the paper.*



The stocks with the merchants were in addition to these. The very announcement that the Government were going to impose control sent stocks into black-market. Thus as a result of the "artificial scarcity" created by the Syndicate, the consumer had either to pay black-market price or to satisfy his needs by the meagre quantity supplied by the government.

Prof. Shibban Lal Saksena circulated to all members of Parliament a 49-page Booklet entitled "Case for a Judicial Public Inquiry into the Present Sugar Racket" in which he said that in fact until May 1949 the Sugar Syndicate and the sugar industrialist themselves had contended that there would be a surplus of 2 lakh tons of sugar which they would have to export abroad. In order to enable them to compete with the foreign markets, Govt. permitted a four anna export surplus per md. The sugar industrialists charged this amount from December 16, 1948 to September 1, 1949 and realised from the public about Rs. 75. lakhs. All this showed that when crisis was "created" in July '49, there was a surplus stock.

That there had been black-marketing on the part of the mills and the Indian Syndicate, was obvious from some of the facts which have already been established. For example when the U. P. Government issued the freezing order on the night of 25-26th of August, 1949 and locked the godowns, the sugar mills in U.P. reported that they had a stock of 92,000 tons in their possession at the time of the freezing order by the U. P. Government. But when the stocks were actually seized on the night of 1st and 2nd of September, 1949 under the orders of the Central Government and the bags were counted, it was discovered that the stocks were only 76,000 tons with the sugar factories in U. P. So, 16,000 tons of sugar were found short. Out of this 16,000 tons, a total amount of 7,000 tons had been delivered to the co-operative societies under the orders of the U. P. Government but the remaining 9,000 tons of sugar could not be accounted for and the U. P. Government was itself puzzled over the mystery.

It was surprising that 9000 tons of sugar vanished even though the godowns had been locked by the U. P. Government. This is the quantity of sugar sent to the black-market under the very nose of the U. P. Government in one week only, but the quantity sent to the black-market in the full month of August was much more. Mr. Des Raj Narang, Chairman of the Indian Sugar Syndicate, while giving evidence before the Indian Tariff Board on 1st December, 1949 stated that the Syndicate had a total stock of 2,80,000 tons of sugar on the 1st of August, 1949. When the stocks were seized by the Central Government on the 1st of September, 1949, the Government could lay its hands upon only 1,06,000 tons of sugar. So during this one month only 1,74,000 tons of sugar left the mill godowns but Mr. Narang himself informed that the actual despatches from 1st of August to 1st of September had been 1,04,000 tons only. Apart from the fact that the despatch of 1,04,000 tons of sugar i.e. 1/7th of the total production of U. P. and Bihar factories in 26 days in the rainy season was an extra-ordinary high figure and could not be easily believed, still that does not explain the full actual difference between the stocks on 1st August, 1949 and on 1st September, 1949. According to Mr. Narang as well as according to the U. P. Government the stocks seized by the U. P. Government on 1st September were 1,06,000 tons. The total difference of stocks was therefore 1,74,000 tons whereas the actual despatches according to Mr. Narang were 1,04,000 tons during the month of August. Thus 70,000 tons of sugar could not be accounted for in month of August alone. Surely, this must be within the full knowledge of the Indian Sugar Syndicate and the mills concerned. In some mills not a single bag of sugar was found in the godowns although they had been permitted to dispose of only 90 per cent of their production. At Bombay, merchants had receipts of sugar despatched from some of the U. P. Mills between 26th August and 1st September, although stocks had been frozen during that period and no sugar should have been allowed to be despatched. Most of these big sugar

manufacturers have their own agents through whom the bogus transactions were done. Sugar was being fictitiously sold to those agents at Syndicate price and those agents sold sugar in the black-market at black-market prices. Of course the agents were the creatures of the mills themselves and so the black-market money came into the pockets of those sugar millowners themselves. That the Syndicate allowed the factories to send their goods to outstations, even though they were unsold has been admitted by Mr. Narang himself in his address to the Syndicate at Lucknow on 29-9-49. In that address he made the following statement :

“It was of course true that Syndicate allowed the factories to send goods to outstations even though they were unsold to oblige railways by using all their wagons. That step was taken by the Syndicate and 1,800 tons of sugar was actually moved to outstations although sugar was unsold. But could it be said that that quantity was being sent to hoarders and profiteers?”

That admission was very significant. There are reasons to believe that a much larger amount was sent in that manner and it was not the factories which obliged the Railways, but certain Railway officials who obliged those factories who approached those Railway officials and begged them to give more wagons than their quota to send their stocks into the black-market. Mr. Narang himself said in his press conference on 9.11.49 that “the only effect of the panicky freezing order of last August has been that as much as 1,50,000 tons of sugar—at least that was the estimate—held by the merchants have gone into the black-market. Those so-called merchants were probably no other than the mills’ own agents, accurate figures for whose stocks were known to Mr. Narang, and their stocks of sugar, even though unsold, were moved to the markets in the full knowledge and with the permission of the Syndicate in wagons obtained from obliging Railway officials. In any case, a case for a thorough judicial public inquiry into the sugar racket has clearly been made out.

What had happened, was this. When the sugar prices were reduced on 2nd December, 1948 by the Central Government from Rs. 35-7-0 per maund to Rs. 28-8-0 per maund, the mills said that they had a stock of 1.75 lakh tons of sugar and demanded compensation for the loss which they would incur at the rate of Rs. 6-15-0 per maund.

The Central Government in calculating the price of sugar for the season 1948-49 added Re. 1/- per maund to help the mills to make up the loss on the initial stocks of sugar and called this rupee one as the “pooling price” of sugar. What the Syndicate should have done, was that it should have pooled the pooling price of Re. 1/- on the total stock of sugar produced by the mills in the season 1948-49 and then this should have been distributed according to the losses suffered by each factory on the initial stock held by it on the 2nd of December, 1948 but the Syndicate did not do that and allowed each factory to keep the pooling price to itself with the result that factories which had little stocks on the 2nd December gained and the factories which had large stocks lost and also the factories with larger production that year gained as compared to factories with smaller production. Such injustice to fellow members was not infrequent in the Syndicate. In fact there were parties inside the Syndicate too and the party in power benefits at the cost of the rest. It was, therefore not, surprising that many of the members of the Syndicate were themselves anxious for the dissolution of the Syndicate. In this particular case of appropriation of pooling price by each factory to itself, there was much bad blood amongst the Syndicate members, and the mills which had suffered that year, did not want to have that year’s experience repeated. In fact, Mr. Narang has himself told that about thirteen Bihar factories have resigned from the Syndicate on that issue, and the Bihar Government has agreed with them and has allowed them to break away from the Syndicate. The result was that many of the factories were keen in selling off their stocks that year as early as

possible. Until the 1st of June, 1949, the low grade of sugar was being sold at Re. 1/- per maund less than the Syndicate's selling price and the factories had found difficulty in selling their sugar, particularly because it was known that there would be an exportable surplus of about 3 lakh tons.

During this period the Syndicate tried to boost up prices by speculation too and as a last resort began to show large releases of quotas which were purely fictitious as no corresponding despatches to-quota released had been made. About the 20th June the Sugar Syndicate gave out that that 70 per cent of the quota had been released over and above the carry over of the last year. This created an impression in the market that there might be shortage of sugar very soon and so the sugar prices began to rise. The actual stocks with the Syndicate on the 1st of July were 52 per cent of the total sugar crushed by its mills during the year. So their announcement that 70 per cent of quota had been released was completely false and had been deliberately intended to create the rise in sugar prices. But the Syndicate went on announcing further releases of quotas and in the 1st week of August declared that 90 per cent of the quota had been released. This again was a falsehood as has now been confessed by Mr. Narang himself that the Syndicate had 2,80,000 tons of closing stock on the 1st of August which represented 38.88 per cent of the total sugar manufactured by its mills during the season. The sugar prices which had already been rising fast, became still higher and sugar mills which had already begun to transfer their stocks to their own selling agents through fictitious sales, now stopped all real sales and began conserving all sugar in their possession for black-market sales and huge profits. That was how during the months of June, July and August, through fictitious releases of quotas and through fictitious sales, the exportable surplus of 3 lakh tons was reduced to acute scarcity. A Committee presided over by a High Court Judge of the standing and repute of Justice Rajadhyaksha and consisting of Sri R. C. Srivastava, retired Director of the Indian Institute of Sugar Technology, Kanpur and three members of Parliament should be constituted forthwith to investigate into that mystery. Our Government has been brought into greater disrepute by this sugar scandal than by all other causes put together and the matter could not be allowed to be dropped without a thorough inquiry into the causes of the present sugar racket. The Government should take the most severe action against those who were found guilty.

#### **U. P. GOVERNMENT'S VERSION OF THE CRISIS.**

A spokesman of the U. P. Government, replying to the charge levelled against the provincial Government that they were responsible for the sugar muddle, by a spokesman of the Government of India said that up to the last week of July '49, the sugar stocks were moving much more fastly than even during those months in previous year. It was feared that the sugar stocks like previous year would accumulate and there would be a big carry over for the next year. The Government were anxious to see that there was no carry over by the end of November because like the last year the high cost of sugar of the previous year would have to be linked up with the cheaper sugar of the fresh year resulting in costlier sugar to consumers. The Government, therefore, were keen on giving all facilities for movement to the Sugar Syndicate for the disposal of stocks that lay with them.

In the months of June and July '49 the Government expected that the price of sugar would go down because of the accumulation of stocks both in the present year and the last year and the Government, therefore, pressed hard the Sugar Syndicate to see that they did not deliberately keep the stocks with them. Because the Government had suspicion that owing to the falling price of sugar it was perhaps considered a useful tactic for the sugar producers to keep back a good quantity of sugar to link it up with the sugar of the next season. On finding that in spite of the transport arrange-

ments some of the sugar mills, were not moving their sugar, the Government wrote to the Sugar Syndicate giving them a stern warning that they must not do so and see to the proper movement of sugar.

In August '49 sugar stocks moved so fastly that the Government were surprised at it. A controversy between the sugar merchants and sugar producers arose and one began to accuse the other saying that sugar was being cornered by the other party for artificially raising the price. It was difficult to say at that stage who was responsible for the cornering of big stocks of sugar, but it was true that a very big quantity of sugar did disappear from the mills and it was freely admitted that this sugar had been sold at premiums ranging from Rs. 2/- to Rs. 6/- per maund. Some prominent men of the Sugar Syndicate confessed to the Government that they had sold sugar at premiums. Merchants also confessed to the Government that some of them had purchased sugar at Rs. 32/- Rs. 33/- a maund.

The Government called the sugar manufacturers and also the merchants in separate meetings and tried to know from them the exact state of affairs. Instead of helping the situation they continued making allegations of cornering stocks against each other and when their attitude was not found helpful, the Government started making their own arrangement.

By the middle of August, the Government had decided to take the help of the Sugar Factories Control Act which empowered them to divert any quantity of sugar from the sugar mills to any party the Government chose. The Government were against imposing any sort of control on this commodity as they knew that there were enough stocks of sugar for the next three months.

The Government, therefore, thought of proposing to the Provincial Marketing Organisation of the Co-operative Department to sell sugar through their consumer's societies at 13 annas 6 pies a seer and asked the sugar manufacturers on August 12, to allot a particular quantity of sugar to the District Co-operative and Marketing Federation of the big towns of the province at Rs. 28-8-0 a maund. The arrangement had immediate sobering effect on the market and the sale of sugar started at consumer's stores at 13 annas 6 pies a seer. That was about the third week of August 1949.

The accusation of the India Government that the effect of U.P. Government order, freezing stocks resulted in great scarcity in the other parts of the country was baseless. More than once the U. P. Government asked them as to what arrangements they would like them to be made for allotting sugar to other provinces.

When the market was steadily settling down and sugar was being sold at 13 annas 6 pies a seer there came the freezing order of the Government of India on September 2, upsetting the entire arrangements by the U. P. Government. If the allotment orders were issued side by side with the freezing orders, the price of sugar would not have soared so high. The freezing order of the Government of India superseded all previous arrangements made by the U. P. Government. The result was that the efforts of the Co-operative Marketing Organization which had made all arrangements, for the movement of sugar from the mills to the consumer's societies shops of big towns were undone. A vacuum was created by which the sugar dealers refused to part with their sugar to anybody saying that the Government of India had sealed all their stocks. Till September 14 no sugar was sold to the representatives of the District Co-operative Federation because no orders had actually reached them as to where they should send the sugar. It could, therefore be deduced from that had the Government of India made simultaneous arrangements of freezing and allotment the present disturbance in the market would not have perhaps been created.

### **I.S.M.A President blames the Government for Crisis**

The criticism levelled against the industry regarding the sugar crisis that occurred in August 1949 was quite unjustified. The industry had despatched sugar according to official instructions and the responsibility for scarcity and higher prices did not lie with it but elsewhere and it was for Government to fix the blame where it lay. Giving figures of supply, the quantity available for consumption in 1949 was 12.22 lakh tons which gave a feeling of apparent surplus. With improved transport and better distribution arrangements and due to the availability of sugar at low price in 1949, consumption however rapidly increased by two lakh tons from 9.62 lakh tons in 1948 and against the pre-war consumption of 8 lakh tons in the Indian Union. It was estimated that sugar to the extent of 50,000 tons had been smuggled into Pakistan. It was wrong to say that the industry had held up stocks.

The crisis was accentuated by the sudden action of Government in freezing stocks and reimposing control without consulting the industry and without even making satisfactory arrangements for sales and distribution.

### **Shri Jairamdas Daulatram, Food Minister, charges the Industry**

Inaugurating the 17th annual meeting of the ISMA, Mr. Jairamdas Daulatram charged the sugar industry with breaking of the understanding reached between it and Government regarding the price of sugar for the year 1949. The industry had given an undertaking to Government that the price of Rs. 28-8-0 per md. would be maintained during the year 1949, but it was a matter of regret that this co-operation was withdrawn and the understanding broken in the month of July 1949.

Referring to the developments leading to the sugar crisis, he said that 60 per cent of the stocks with the factories had already been despatched by the end of June 1949 (See Table No.79) while only 40 per cent was available with them for the remaining five or six months. Though the stocks with the factories appeared to be less than the needs, some people started the talk about export of sugar to Pakistan.

Such exports could only be made from factory stocks at a specially reduced price, for the stocks with the trade were purchased at a price much higher than the one at which Pakistan was purchasing from other countries. The combination of the two factors reduced stocks with the factories thus leading to the Sugar crisis.

Referring to the ISMA President's suggestion that Government's intervention made sugar more dear and scarce he said that he could understand the consuming public who had to suffer so much inconvenience, telling Government that it should not have intervened in the situation and should have allowed the law of supply and demand to freely operate.

"But would it be appropriate for representatives of the industry most of whom have broken the understanding by charging an increasing rate of premium for which no limit could be set, to suggest that Government should not have intervened and should have allowed the law of supply and demand to operate?"

Regarding the smuggling of about 15,000 tons of sugar to West Pakistan, he informed that an inquiry was made officially and it was learnt that no sugar was booked to border stations for export during that period.

### **GOVERNMENT OF INDIA'S ANALYSIS OF THE SITUATION**

Various causes have contributed to the present rise in prices. About the middle of June 1949, it became known that the industry was of the view that sugar should be exported in large quantities to Pakistan. The Syndicate also published the fact that a very large percentage of production had already been released for the market

There was also a rise in consumption of sugar owing to extension of sugar habit during the years of control and rationing and the fall in sugar price from Rs. 35-7-0 to Rs. 28-8-0. Despite this, the supply position in July was by no means acute so as to justify the present abnormal rise in price. Government felt that this abnormal position was to a large measure due to speculation. There was a feeling among the merchants and the factories of a possible shortage in the remaining months of the year. Admittedly, most sugar factories took premia on their ex-factory sales.

### GOVERNMENT OF INDIA'S NOTE ON SUGAR SITUATION

Prior to the sugar debate in Parliament on December 24, 1949, Government of India circulated a note on sugar situation which gave the official reason for the sugar scarcity. Among the reasons listed were:—

- (a) Increase in consumption.
- (b) Increase of population.
- (c) Increase in the standard of living.
- (d) Lower price of sugar.
- (e) Consumer's preference for sugar.

The following statistics might throw some light on it.

Carry over from 1947-48			175,000	tons.
Stocks with trade	..	..	100,000	"
Production	..	..	1,020,000	"
<hr/>				
Total available	..	..	12,95,000	tons
Total annual demand at the rate of 110,000 tons per month	...	...	13,00,000	"

The supply and demand position could be stated to be "tight". The consumption in the first seven months from December, '48 to June, '49 must have made the industry realise that there would be no surplus. The industrialists about that time approached Government for permission to export 50,000 tons to Pakistan, which was granted. The news of this permission, coupled with the Sugar Syndicate's announcement in July 1949 that nearly 90 per cent of the current year's production had been released from factories resulted in speculative purchases and increase in prices.

The despatches from the U. P. and Bihar factories in July was 98,528 tons as against 56,127 tons in the same month in 1948. The factories were stated to be quoting Rs. 6 to Rs. 7 per md. above the price fixed by the Sugar Syndicate.

The Government of India consulted representatives of the Industry and members of the Sugarcane Committee on August 16 and 18 on the steps to be taken to meet the situation.

#### Stocks Released.

The stocks released by the Syndicate in August were 121,423 tons against 88,042 tons in August 1948.

After consultations with the Standing Advisory Committee on August 21, 1949 the Ministry formulated proposals which were considered by the Economic Committee of the Cabinet on August 23, 1949. The general freezing of stocks with the factories was not contemplated by the Govt. at that stage, but only the fixation of the price agreed to by the Sugar Syndicate earlier in the year statutorily with powers to the provincial Governments to take action against offenders by freezing stocks. A proposal to export 50,000 tons of sugar was turned down due to non-availability of foreign

These proposals were communicated to the provincial Governments on August 26, and their opinion was solicited urgently. In the meantime, the U. P. Govt. announced the freezing of sugar stocks with factories in the province on August 27.

The Economic Committee of the Cabinet met on August 30, 1949 and considered the situation and also the replies from the provinces to their proposals. It was then decided that sugar stocks with factories all over the country should be frozen on behalf of the Central Government. This decision was again formally approved by the the Committee on September 1, when the Bihar and the U. P. Premiers were present and the decision was endorsed by the Cabinet.

The freezing order was communicated to all provincial and state Governments and simultaneously their requirements were called for. A week's time was taken before preliminary allocations could be made, through emergency allotments were made in the case of few provinces. In all about 120,000 tons were allotted to the provinces out of the frozen stocks. All the provinces and states were asked to make arrangements for the distribution of sugar at least till the middle of December, 1949, before which new production would not be available. While the controlled price of sugar was about 0-12-0 a seer, the open market price was about Rs. 2 to Rs. 2-4-0 a seer.

### **SUGAR DEBATE IN PARLIAMENT—FULL INQUIRY TO BE HELD**

On December 24, 1949 the Indian Parliament debated the sugar crisis. Mr. Jairamdas Daulatram, Food and Agriculture Minister initiated the sugar debate and announced that a full inquiry would be held in the happenings and every aspect of them will be inquired into by a body which will thoroughly satisfy the House. The inquiry will be held after the Tariff Board has submitted its report in the month of January 1950.

The members who took part in the debate were M/s. Ajit Prasad Jain, Shibbanlal Saxena, Acharya Kripalani, Mahabir Tyagi, Naziruddin Ahmed, Hussain Imam, Dr. P. R. Deshmukh, Thakurdas Bhargave, Balkrishna Sharma, O. V. Algesan and H. V. Patsakar.

Mr. Ajit Prasad Jain said that he doubted the figures given by Government that the total consumption of sugar in six months were 9.96 lakhs of tons. It was said that part of the sugar might have been smuggled out to Pakistan while the Government tried to explain away the increased consumption by saying that it was due to an increase in population and in the habit of sugar eating of the people and facilities of transport. His own apprehension was that it was concealed by the mill-owners, by the traders and the wholesale dealers in order that they might take advantage of a rise in prices. He wanted to know how the Government issued a licence for export of 50,000 tons of sugar to Pakistan when the sugar stocks had been depleted to the barest minimum.

He said that the U. P. Government blamed the Central Government and the Central Government blamed U. P. Government for having precipitated the crisis. Both the Central and Provincial Governments blamed the merchants and mill-owners. The President of the Mill-owners' Association accused the Government for having created the scare. Merchants said that it were the mill-owners who were responsible. In this confusion, the consumers suffered, and were suffering. The Government must investigate and find out who was responsible for the muddle.

Mr. Shibbanlal Saxena said : The Institute of Sugar Technology in Kanpur, should come under the direct control of the Government. He was surprised that the Government had given the figures of stocks from the publications of the syndicate.



Acharya Kripalani said that it had been stated that at least 13 lakh tons of sugar would be available in the market, while the utmost annual consumption had been in the neighbourhood of 10 lakh tons. There was "apprehension" that three lakh tons of sugar would be available for export and this "apprehension" was provided against by allowing the manufacturers to levy a four-anna export surplus in order to enable them to export sugar to other countries at competitive rates. In this way, the manufacturers collected 75 lakhs of rupees. All of a sudden, when the muddle came, "when we were in a soup" Government said that the consumption of sugar had increased and hence there was a shortage. Government ought to have known that the population had been increasing progressively for two centuries. This was the plea advanced by the foreign government also for all the starvation and famines in India. Even assuming that consumption for various reasons would increase by three lakh tons, from 10 to 13 lakhs, Government ought to have husbanded their resources and ensured proper distribution.

What did the United Provinces Government freeze? They froze the sugar in the mills. "Even a blind man could have known that about 90 per cent of the sugar had already gone out of the mills. They froze the remaining 10 per cent in the factories."

Acharya Kripalani added "the United Provinces Government gave out the reason that they had no powers to touch sugar, which had gone out of the factories. If that was so, they had no business to touch the sugar remaining in the factories without consulting the Central Government. He was also told that the United Provinces Government announced the freezing order in the papers on August 26 and notified the mills by registered letters. This was a wonderful way of doing things (laughter). He wished to tell the house that even among the capitalists there was one party, that wanted the dissolution of the Sugar Syndicate because it did not have any power in the Syndicate.

Mr. Thirumal Rao said that the Food Minister had no definite policy in the matter of sugar and had been drifting with bureaucracy managing the whole affair. The U. P. and Bihar Governments were dictating the policy of the establishment of new sugar factories.

Mr. Naziruddin Ahmad said that the Government of U. P. took the fatal step on July 21, 1949, when they wrote a letter to the Sugar Syndicate asking them to release the entire stock representing 26 percent of the production when five months were yet to go for the new crushing season to begin. When the U. P. Government had issued the order, the Bihar Government's stocks were absolutely uncontrolled. There was no co-ordination, and the Government's failure was responsible for the trouble. There was no case for the abolition of the Sugar Syndicate, but it should be reconstituted. There was considerable amount of sugar throughout the country in black market, and only a declaration of policy by the Government that sugar would be imported to such an extent as to remove shortage of sugar in the country would bring out the hidden stocks.

Mr. O. G. Algesan said that these "commercial and industrial thugs" had in this sugar scandal struck a heavy blow at the prestige of the Government. He said that the Government had committed an affront to the house by giving increase in population as one of the causes of the sugar shortage.

Mr. Hossain Imam said that the inquiry should be presided over by a judge of the calibre of Justice Rajadhyaksha or Justice Vardachari and should be completed as soon as possible.

Dr. Punjabrao Deshmukh said that the main blame for the muddle would have to be put at the door of the Central Government. The Syndicate, the mill-owners, and the traders had played their own part. The Syndicate was the



creation of the Government and any reasonable person could expect the Central Government to keep itself thoroughly informed of the doings of the Syndicate.

Giving the figures of the lifting from the factories of the past several years, Dr. Deshmukh maintained that the average consumption for undivided India had been 70,000 tons a month. The argument given in the "unconvincing note" circulated by Government of greater consumption was, therefore fallacious. There had been a great deal of bungling on the part of the Government and that was the main reason why the country had suffered.

Mr. Sarangdhar Das wanted no person connected with the sugar trade to be on the inquiry committee. Referring to the Sugar Syndicate, Mr. Das said that it had entered into a conspiracy with the sugar magnates against the Government and it has succeeded. In a circular the Syndicate had asked the sugar magnates to charge a premium over and above the controlled price. He asked why the Government had not punished those responsible for this conspiracy.

Mr. Balkrishna Sharma said that "this inhuman, monstrous, greedy, gruesome, mean and murky manipulation of sugar prices by the thugs of the sugar industry has scotched the dream of changing social order."

The sugar scandal, Mr. Sharma said, was nothing but "chicanery, fraud, and dishonesty." The sugar crisis did not come suddenly. It was "a well-arranged and deliberately created crisis"

Marchants and wholesalers, he said, were being blamed for the black market. He did not say that they were not guilty. But from his personal experience he could say that wherever there was black marketing, ultimately the mills were responsible. Each group of mills had its own group of agents to distribute sugar. The Birla group with five mills had two agencies, the Thapar group with five mills had one, the Dalmias with seven mills had three, the Khaitans with four mills had one, the Jaipurias with two mills had two agencies, the Bajudivals with two mills had one agency. That would show that it was not the ordinary merchants who were responsible for the black market.

Mr. R. K. Sidhwa said that three days after the freezing of stocks with the mills by the U. P. Government on August 26, 800 bags were despatched by a U. P. mill to Bombay. That was brought to the notice of the minister in October by a responsible person. The Minister was stated to have replied : "What is past is past. Let us talk of the future."

In replying to the debate Mr. Jairamdas quoted figures supplied by the Central Board of Revenue to show that consumption of sugar had been increasing. This was also the conclusion arrived at by a committee of specialists.

## **B—GOVERNMENT CONTROL SUGAR PRODUCERS DIRECTED TO DECLARE STOCKS**

The U. P. Government asked the producers of sugar to declare the stocks held by them on August 26, 1949 to the District Magistrate and to sell those stocks only to those persons or organisations nominated by the Govt.

An order issued to that effect said that sale of sugar should be at a price based on Rs. 29-1-0 per md. (inclusive of additional excise duty) for D 24 grade in the usual packing and loaded in wagons. The grade differential in the price for each grade on that basis should be the same as that which was in force, according to the official Indian Sugar Syndicate price ruling between the commencement of the season 1947-48 and the commencement of the crushing season in 1948-49.

## **A SIX-POINT MEASURE ANNOUNCED BY GOVERNMENT OF INDIA**

On September 1, 1949 the Govt. of India announced a six point measure to be taken to reduce sugar price. A press note issued by the Ministry of Agriculture said that (1) powers under the Essential Supplies Act were being delegated to the provincial Governments to take over stocks from dealers where and when necessary and distribute them at such prices as might be fixed and through such agencies as might be decided upon.

(2) The ex-factory prices of Rs. 28-8-0 for D 24 quality and of Rs. 29-1-6 for D 27 quality and the corresponding prices for other grades of sugar originally fixed by the Indian Sugar Syndicate in December 1948, will be declared as the statutory maximum prices under the Essential Supplies Act.

(3) The provincial Governments were also being authorised under this Act to license sugar dealers if necessary.

(4) All stocks of sugar with the factories in the Dominion whether sold or unsold, and in the factory premises or outside will be taken over at the ex-factory prices.

(5) Forward sales will be banned.

(6) Govt. of India will announce in consultation with the provincial Governments a reduction in the prices of sugar for 1949-50 as soon as possible. The provincial Government were being asked to take all possible steps to maximise crushing of cane in order to increase production in the next season. Frozen stocks with factories will be used for the purpose of reducing prices by releasing them as and when necessary.

The press note added that the Sugar Syndicate has not been able to function in a rising market in a manner consistent with public interest. The Tariff Board will be undertaking an inquiry into the working of the Syndicate.

The press note reviewed the price of sugar from December 1948 to August 1949 and said that the retail prices in most areas rose to Re. 1 to Rs. 1-2-0 per seer, a rise of more than 20 per cent, in consequence of the higher prices charged by the factories and merchants. Factories were charging premia over the agreed rate to the merchants, who, in turn, were selling at still higher prices. Speculation was one of the most important causes for this sharp rise in prices.

## **FUTURES AND OPTIONS IN SUGAR BANNED**

Under the Essential supplies (Temporary Powers) Act of 1946, the Government of India passed the Sugar (Futures and Options) Prohibition order which came into force from September 2, 1949.

The order prohibited any person (1) to enter into any futures in sugar or pay or receive or agree to pay or receive any margin in connection with any such future except with the permission of the Central Government, and (2) enter in any option in sugar.

Options in sugar entered into before the commencement of this order and remaining to be performed either wholly or in part shall be void within the meaning of the Indian Contract Act and shall not be enforceable.

No person being the owner or occupant of any premises shall permit them to be used for the making of any futures or options in sugar.

## **SUGAR NOT TO BE EXPORTED**

The Agriculture Ministry of the Government of India announced in a press note issued on September 8, 1949 that they have no intention of allowing any export of sugar from the 1949 stocks which will remain for internal consumption.

One of the causes that led to the recent sharp rise in sugar prices was the rumour about the export of substantial quantities of sugar to Pakistan. The view of the industry was that such export should be permitted. No sugar has, however, actually been exported.

## **CENTRE TAKES OVER SUGAR STOCKS**

The Government of India passed the sugar stocks (Sale of Central Govt.) order 1949 which came into force in all the provinces of India on September 2, 1949. It provided that every producer (1) shall sell or be deemed to have sold all stocks of sugar held by him to the Central Government at the scheduled price (2) shall furnish to the Central Government within ten days full details of the stocks of sugar held and (3) shall hold stocks on behalf of the Central Government till arrangements were made for their disposal.

## **SUGAR STOCKS IN BOMBAY FROZEN**

All sugar stocks in factories in Bombay Province were frozen with effect from 5th September 1949 under orders of the Central Government. There were 13 sugar factories in the province and their stocks were estimated at 15,000 bags.

## **PRICE FIXED AT HIGHER LEVEL**

The freezing order of the Central Government would not affect the price of sugar in Bombay province which was fixed at higher level than those announced by the Central Government. This was due to the fact that merchants had paid higher price to the factories for the existing stocks with them.

## **MADRAS ACTION**

About 50,000 bags of sugar held in various factories in Madras province were frozen.

## **RETAIL PRICE FIXED IN U. P.**

The U. P. Government fixed the retail price of sugar at Rs.0-13-0 per seer through a press note issued on September 9, 1949. They also issued orders for the release of specified quantities of sugar out of the frozen stocks lying with the mills to dealers

nominated by the District Magistrate concerned under the authority delegated to the provincial Government by the Government of India. District Magistrates were authorised to take appropriate action against those dealers who may violate the price control.

### **WHOLESALE EX-FACTORY PRICE REVISED**

While fixing the ex-factory prices the Government had omitted (1) additional Excise Duty (2) Freight difference (3) Extra As. 4 on account of rate earnings (4) and Provincial Sales Tax. A representation was made by the Syndicate in this connection to the Government of India and the following points were elicited from Mr. N.T. Mone, Joint Secretary.

- (1) Government agreed to the addition of 0-9-0 annas per md. on account of additional excise duty. Factories were permitted to charge this.
- (2) Factories were permitted to charge the Provincial Sales Tax in addition.
- (3) Government did not allow the extra 0-4-0 annas on account of additional rate earnings on stocks frozen by Government and Syndicate will be collecting only 0-1-0 anna per md. on this.
- (4) Government did not agree to allow factories to charge freight difference.

### **EAST PUNJAB SUGAR CONTROL ORDER**

On 1st October 1949, the East Punjab Sugar Hoarding and Movement Control Order was issued directing all firms, banks, dealers or others to declare stocks of sugar more than a maund held by them by October 4. It was further ordered that no person shall transfer export or sell such stocks or otherwise dispose of them except with the permission of the District Organiser, Civil Supplies and Rationing.

### **Sugar Rationed in Delhi.**

Sugar was rationed in Delhi from 4th October 1949. The quota was one and a half chhattak per unit per week, to be available against ration cards from food grain ration shops.

### **RATIONING INTRODUCED**

Sugar was to be distributed in East Punjab on ration cards at 5 chhattaks per person per month.

### **REDUCTION IN SUGAR PRICE IN WEST BENGAL**

A reduction in the price of sugar from 15 annas per seer to 0-13-9 per seer was made from the second week of November 1949. The quantum of ration per head per week was two chhattaks, which was half the quantity allowed during the previous control on sugar in 1946-47 whereas the total requirements of the Province was about 5000 tons per month, the Government of India had allocated 2,500 tons in September and 5,500 tons in October 1949. But due to transport difficulties, the arrivals were poor. A rationee was not permitted to possess at any one time a quantity of sugar in excess of one seer per head in a family including servants. Possession of more than this is an offence.

### **MADRAS ORDER FOR LICENCE FEE FOR DEALERS**

The question of levying a license fee from the licencees selected under the Madras Sugar Dealers' Licensing Order, 1949 was engaging the attention of the Government. It was ordered that if any wholesaler refused to receive railway receipt, some other wholesaler might be selected by the Collectors and no more allotment might be made to such wholesalers who refused to accept railway receipts for North Indian sugar.

## **CONTROL OF SUGAR FACTORIES IN MADRAS**

The Government of Madras have constituted an Advisory Committee under the Sugar Factories Control Act with four official and four non-official members. The Sugarcane Commissioner will be the chairman of the Committee whose other members are (1) Registrar, Co-operative Societies (2) The Provincial Marketing Officer and (3) The Sugarcane Specialist (secretary). Non-official :- One from M/s. Parry and Co., one from Vuyyuru Factory, and Mr. E. V. Sundra Reddy and Dr. B. Nagan Gowda.

## **RESTRICTION ON TRANSPORT IN MADRAS**

On 26th October 1949 the Government of Madras framed orders to regulate the transport of sugar in the province. Under these orders, no sugar shall be transported or offered or accepted for transport by rail, road or water except under and in accordance with the terms of the special permit issued by the Commissioner of Civil Supplies, Madras. The restriction does not apply to sugar upto 5 seers or to the transport of sugar by a person within the limits of a city, town or village for personal or domestic consumption. This restriction does not apply to jaggary or gur which can be transported freely.

## **WEST BENGAL SUGAR LICENSING ORDER, 1949**

Under these orders, the purchase, sale or storage for sale in wholesale quantities of 25 bags or more, weighing 2 mds. and 30 seers each in one or more transactions within a calender week in the province without a proper license is illegal. Submission of the daily returns of receipt, issues and balance of stocks has also been made compulsory.

## **RESTRICTION ON TRANSPORT IN WEST BENGAL**

A similar order as in Madras province mentioned above was issued in West Bengal on November 20, 1949

## **MADRAS QUOTA ALLOTTED.**

The Government of India have allotted 10,000 tons of sugar for the Madras Province for the months of January 1950. Prior to this, the average allotment per month was, 6000 tons.. The per capita ration was also raised from 5 palams to 8 palams for those earning Rs. 100/- or more per month,

## **ON THE SPOT FREEZING ORDER BY BOMBAY GOVT.**

The Government of Bombay ordered an "on the spot" freezing of the 1949-50 sugar produce in the factories of the province. Daily output of sugar in factories, according to the order, will automatically be frozen within the factories. A Government spokesmen said that from Nov. 2, 1949 all frozen stocks would be immediately taken charge of by the Government from sugar factories and distributed through their own channels. The Sugar Merchants' Association had practically ceased to function in regard to distribution of sugar to the public.

## CRITICISM OF GOVT. CONTROL

A conference of U. P. sugar dealers which was held on the 11th September 1949 at Kanpur, demanded that all restrictions and control over sugar trade should be removed by the Govt. as they entailed a great hardship to the merchants as well as the consumers. It was pointed out that there was an adequate stock of sugar in the country and in case the control was removed, the hoarded stock will come out and the consumer will have no difficulty in meeting his needs at reasonable price. The conference protested against the steps taken by the Government in nationalising the trade by distributing sugar through co-operative societies in preference to regular trading.

The Kanpur Sugar Brokers' Association also protested against the decision of the Govt. to impose control on sugar, as it would surely lead to growth of black market and corruption. They wanted the Govt. to remove all restrictions on sale in open market as otherwise the whole market stock which has gone underground will have an outlet in black market only and thousands of middle class people would become jobless.

Prof. Shibban Lal Saksena, M. C. A. a labour leader also criticised the imposition of control on sugar as in his opinion, it has resulted in stock vanishing in the black market and the actual price shooting up to an extent beyond the reach of common man.

The Kanpur Sugar Merchants' Association has also urged upon the Government of India that the sugar control was highly undesirable and should be withdrawn forthwith. The control has further complicated matters and the public are experiencing great difficulties. The effect of control will be short production in the 1949-50 season. The remedy in the shape of control has proved more dangerous than the disease itself.

The Bengal Merchants' Association has emphasized the need for decontrol at an early date. They say that price of sugar at the time of imposition of control was 0-15-0 per seer and if control was removed it would not go up beyond Re 1/- to Rs.1-2-0 per seer. Since the imposition of control, price of sugar has increased to Rs. 3/- per seer at many places, and the gur prices have also shot up which the government will have to tackle. Sugar control without an effective control of gur would only result in a low production of sugar and continuance of high gur prices which of course, cannot be controlled. The remedy, therefore lies, in decontrolling of sugar so that sugar production might be maximised as that will have a depressing effect on prices of gur also.

## PARLIAMENT'S CRITICISM OF CONTROL

During the sugar debate in Parliament held on 24th December 1949, the Government was subjected to severe criticism for its failure to run the control efficiently and effectively. Acharya Kripalani said that there was a philosophy of control and decontrol which Government were not prepared logically to follow. The philosophy of control was that the black market must be ruthlessly wiped out. If Government could not wipe out the black market how could control benefit the public.

Mr. Prabhu Dayal said that if controls were not carried to their logical conclusion, it was worse than control. Mr. H. V. Pataskar pleaded for decontrol of sugar with a definite announcement that control would not even be thought of in the future. Mr. Hossain Imam said that rationing of sugar was an encouragement for black marketeers

and so long as the government was not able to provide full ration, decontrol was the only course. Mr. Thakurdas Bhargava wanted control on sugar to be removed when sufficient sugar was produced in the country, there was no necessity of controlling it. The very need for control showed Government's inefficiency in the matter. Mr. K. C. Sharma wanted sugar to be controlled, rationed, and its prices fixed. Mr. Sidhwa felt that control was very good in principle but as it was not enforced, he would favour decontrol with a kind of fixation of prices.

Mr. Jairamdas Daulatram, Food Minister, replying to above criticism said that wherever the Government controlled a commodity, certain dissatisfaction arose and whenever decontrol was effected, the demand for control was made. Public opinion should be educated on one line or another for the acceptance of the consequences of either decision.

## **C—MAXIMISATION OF SUGAR PRODUCTION GOVT. MOVE TO HELP STEP UP PRODUCTION**

To maximise sugar production in the 1949-50 season, the Government of India decided to give sugar factories a revenue concession in the shape of a lower rate of duty equivalent to about nine annas a maund. This amount will be refundable to factories whose additional output of sugar during the season 1949-50 exceeds more than five per cent the production for the season 1948-49 and will be in respect of all such additional quantities.

Further, during the year 1950, the Government would give priority for materials, such as iron, coal, steel and cement, and facilities regarding the maintenance or extension of plants of factories in accordance with the percentage of their excess production over the previous season's figure.

## **GOVT. CONCESSION TO INDUSTRY—REBATE IN CESS**

As an inducement for stepping up the production of sugar during 1949-50, the U. P. Government have decided that a rebate of 9 pies per maund of sugarcane on the cess payable will be allowed to sugar factories in respect of sugar produced by them which was in excess of last year's production by more than 5 per cent, provided that, if the factory was situated in the Meerut, Rohilkhand or Central Range of the U. P., it has started crushing sugarcane not later than November 25, 1949, and if it is situated in the mid-eastern or eastern range, it has started crushing not later than December 10, 1949.

## **I. C. S. C's CALL**

The Indian Central Sugarcane Committee in a resolution passed on 12th November '49 called upon the factories to improve the supply position by starting crushing immediately. Unless this could be done prices could not be reduced. Even if the price fixed meant a little sacrifice of the profit of the industry they would, instead of sitting on the fence, come forward and not ask for more blood from the consumer.

## **SARDAR PATEL'S APPEAL TO INCREASE PRODUCTION**

The Deputy Prime Minister, Sardar Patel, appealed for 10 per cent increase in sugar production during the season 1949-50. He met six leading sugar producers Sir Sri Ram, Mr. B. M. Birla, Mr. Karamchand Thapar, Mr. D. R. Narang Mr. S. P. Jain, Mr. O. Melley (Begg Sutherland & Co.,) at a conference in New Delhi on 18th November, 1949 and urged upon them the necessity of increasing production by 100,000 tons. The sugar manufacturers were stated to have fully responded to the appeal and requested the Government to provide them with more wagons and reduce freight for carrying sugarcane. Sardar Patel asked them to submit their requirements and assured that the Government would do its best to meet their demands. If the production goes up by 10 per cent sugar shortage may be wiped out by April 1950.

Earlier to this appeal by Deputy Prime Minister, 30 sugar factories of Eastern U.P. had decided to put off crushing operations till January 1, 1950. The managements of these mills opined that early crushing operations would lower sugar recovery. The sugar price fixed for the seasons 1949-50 was highly uneconomic and an earlier start of factories would further increase the losses of sugar industry. They also wanted a ban to be imposed on the manufacture of gur and on its movement from the eastern districts.



## **APPEAL SUCCEEDS.**

In response to the Government directive to start the mills as early as possible the mills in Bombay province started their campaign in the second week of November 1949. Seth Mangtaram Jaipuria, an industrial magnate of U. P. also convened a meeting of the eastern group of sugar factories on November, 24 at Gorakhpur, which decided to start the sugar factories as early as possible and thus reverse the earlier decision to put off crushing till January 1950.

## **SUGAR SYNDICATE'S DIRECTIVE TO START CRUSHING**

In response to Sardar Patel's appeal, the Board of Indian Sugar Syndicate unanimously decided to request the member factories to start crushing as early as possible. Syndicate expected that most of the factories will have started production by December 1, 1949. The target for the season 1949-50 was eleven lakh tons. Shri D. R. Narang wired to all the member factories in U. P. and Bihar to commence the crushing campaign at an early date.

## **ADDITIONAL OUTPUT TO BE DUTY FREE**

The Government of India decided to exempt sugar factories from excise duty for any additional output of sugar during the 1949-50 season over the production for the 1948-49 season. This revenue concession followed Sardar Patel's discussion on production problems with sugar magnates. The demand of the industry for an increase in the price of sugar fixed at Rs. 28-8-0 per md. was however not acceptable to the Government.

## **MADRAS TO STEP UP PRODUCTION**

Efforts were being made to increase the production of sugar in Madras during 1949-50 from 55,000 tons to about 70,000 tons. This was possible in case the factories could get the maximum amount of sugarcane for crushing. It was also necessary to reserve the areas round about the factories for sugarcane cultivation and notify them under the Sugarcane Act. The banning of jaggery manufacture within such a reserved area would also be necessary for making available the necessary quantity of sugarcane for the factories.

## **BOMBAY BANS KHANDSARI MANUFACTURE**

The Government of Bombay issued an order under the Essential Supplies Act, 1946, prohibiting the manufacture of khandsari sugar from sugarcane juice, rab or jaggery in the province, with effect from 15th November 1949. The price of sugar candy has been fixed at annas eight per lb. and that of Lissa, Bura and Khandsari sugar at annas seven per lb. both inclusive of sales tax. These prices will come into force from November 21, 1949.

Weekly declaration of stocks of khandsari sugar has also been prescribed throughout the province and a stock of more than a md. will have to be declared.

## **SUPPLY OF SUGARCANE FOR JAGGERY REGULATED IN MADRAS**

All sugarcane within easy access of a sugar factory in Madras would be conserved for the production of sugar and steps would be taken to prevent as much as possible any such cane being used for making jaggery. If the production of sugar increases, people would not be obliged to use jaggery so much as at present with the result that prices of jaggery would then fall. Only sugarcane which was at a considerable distance from a sugar factory and which could not be easily transported to it, will be converted into jaggery.

### **I. S. M. A. CHIEF ASSURÉS PATEL**

Shri Shanti Prasad Jain, President of the I. S. M. A has given an assurance to Sardar Vallabhbhai Patel that sugar mills would make an all out effort to increase production to the target figure of 1.1 million tons for the current season. Presiding over the 17th Annual General meeting of the Association Mr. Jain appealed to the sugar industry to start crushing operations at the earliest possible date and realise the target. He anticipated that industry would attain the target but having regard to the consumption during 1949, it was necessary to achieve a figure of 12 lakh tons which the industry had produced in the year 1943-44.

He said that the only remedy to sugar famine and high price lay in more production. Government should give full consideration to factories for early commencement of crushing and continuance till late in the season to facilitate maximisation of production. But that would obviously bring down recovery and consequently increase costs. He regretted that the need for calculating lower recovery for price fixation was not fully appreciated by Government.

### **BAN ON MOVEMENT OF GUR AND KHANDSARI DEMANDED IN U. P.**

Leading sugar industrialists hold that unless the U. P. Government ban the movement of 'Gur' and 'Khandsari', it would be not be possible for sugar factories to produce the target quota of sugar. Enormous quantities of cane were disappearing and were being converted into 'Gur' and Khandsari. Factories which had been working full time in November were handicapped due to an inadequate supply of cane.

## CHAPTER XVII

### LABOUR

The Sugar Industry is unique in its close link with agriculture which has no parallel in the case of any other protected industry in the country. The main characteristic and distinguishing feature of sugar factories is that these are nearly all situated close to or in the heart of cane growing areas.

#### Empolyment.

The Sugar Industry is perhaps the biggest employer in the two provinces of U. P. and Bihar employing, as it does, about 1,20,000 men during the crushing season and about a quarter of the number during the off-season.

The following table (Table No. 80) taken from the report on Labour Conditions in Sugar factories, L. I.C. Government of India gives the variations in the employment of average daily number of employees in the sugar Industry.

TABLE No. 80

	Madras	Bombay	Sind	Bengal	U.P.	Punjab	Bihar	Orissa	C.P. & Berar	Assam	%	Total.
1929	2,389	330	—	—	7,256	130	4,621	—	—	—	—	14,726
1930	2,312	330	—	—	7,126	500	4,585	—	—	—	—	14,853
1931	2,215	1,111	—	—	9,592	539	4,573	—	—	—	—	18,030
1932	2,619	1,191	—	90	20,251	896	8,862	—	—	—	—	33,909
1933	2,470	1,331	—	958	29,724	1,188	13,524	—	—	—	—	49,195
1934	2,844	2,159	—	2,224	38,254	1,935	16,770	—	—	—	—	64,186
1935	3,286	2,597	—	3,298	41,808	2,200	16,479	—	—	32	—	69,700
1936	3,969	3,753	406	3,508	44,269	2,200	18,611	290	62	—	17	77,087
1937	3,501	4,419	406	3,198	44,537	1,485	18,334	571	—	72	—	76,523
1938	3,983	4,155	350	2,431	45,188	1,320	18,110	517	—	—	88	76,142
1939	4,567	5,453	177	3,558	45,229	1,303	16,071	493	5	52	—	76,908
1940	4,429	8,049	140	4,675	47,214	1,472	18,998	667	—	132	—	85,776
1941	4,026	8,992	181	5,287	47,472	1,570	17,129	639	—	106	316	85,718
1942	4,983	5,263	119	4,646	49,663	1,485	16,866	759	—	—	316	84,100
1943	4,001	1,924	75	3,831	51,907	1,362	18,776	543	—	—	875	83,294

From the above table it can be said that the increase in employment between 1929 and 1939 was 422.3 per cent, between 1939 and 1943 was 8.3 per cent and between 1929 and 1943 was 465 per cent.

#### RECRUITMENT & RE-ENGAGEMENT

The workers are generally recruited at the gate through the heads of departments viz. the Chief Chemist, the Chief Engineer, the Cane Manager or the Cane Superintendent. The supervising and technical or other superior staff are appointed by the General Manager in consultation with the Managing Agents or proprietors. Naturally preference is given to old hands at the commencement of the season. In the United Provinces and Bihar, the permanent hands are sometimes asked to inform the old seasonal workers of the time of commencement of work. In certain factories in Bihar even letters are issued to the outgoing seasonal workers. While preference is generally given to old employees at the beginning of the season, the practice is neither strictly nor uni-

versally followed. The Khaitan Enquiry Committee thought it desirable that a certificate should be given to each workers at the close of the season that his work had been found satisfactory and that such workers should be given preference in re-employment.

### PERMANENT & TEMPORARY WORKMEN

In the sugar Industry, the classification of workers into "temporary" and permanent does not normally hold good. The workers fall into two main categories.

- (i) Permanent non-seasonal and
- (ii) Temporary or seasonal.

The workmen in the Engineering, Laboratory, Administrative and medical departments mainly constitute the non-seasonal class, while the rest are seasonal. The 'permanent' employee throughout India require some notice, usually a month, before their services can be dispensed with, while temporary workers can be dismissed at short or no notice.

Certain skilled workmen are "played off" during the off-season and are paid an allowance called the "retainer" at varying rates upto 50 per cent of their wages. There is another class of workmen called the "casual" workmen who are appointed formally on a temporary basis for building construction and other odd jobs.

The percentage of the seasonal to the total workers varies from one centre to another and even in the same centre from one unit to another. The following extract from the Labour Investigation Committee will clear the picture.

Centre							% of Seasonal to total workers
Darbhanga	..	..	..	..	..	..	70
Champaran	..	..	..	..	..	..	75
Gorakhpur	..	..	..	..	..	..	75 to 95
Meerut	..	..	..	..	..	..	66 to 80
Madras	..	..	..	..	..	..	12 to 57
Belapur	..	..	..	..	..	..	34 to 40

### Length of Service

The following table has been taken from the report of the Labour Investigation Committee Govt. of India 1944. The figures in brackets show the percentage of workers lying in different service groups in each centre.

Serial No.	Centres	0-1 Year	1-5 Years	5-10 Years	Over 10 Years
1	Meerut	2,166 (67.3)	398 (12.4)	485 (15.1)	168 (5.2)
2	Gorakhpur	884 (10.9)	2,230 (27.5)	2,438 (30.0)	2,562 (31.6)
3	Champaran	2,206 (77.3)	506 (17.7)	135 (4.8)	6 (0.2)
4	Darbhanga	940 (58.3)	105 (6.5)	149 (9.2)	419 (26.0)
5	Madras	357 (19.1)	352 (19.9)	263 (14.9)	814 (46.1)

The proportion of workers under one year's service appears to be very large in Meerut, Champaran and Darbhanga. The highest percentage of old workers who have put in 10 years or over is to be found in Madras, perhaps due to the fact that the units are partly perennial in character.

## LABOUR TURNOVER AND ABSENTEEISM

Labour turnover in the sugar Industry is quite low, the average varying between 2 and 3 per cent.

Most of the unskilled and semi-skilled workmen are drawn from the villages close by. Nearness of home and the fact that the crushing season in sugar factories coincides with the slack season in agriculture accounts for this low turnover of labour in the sugar Industry.

Incidence of absenteeism is likewise not very high in the case of the sugar industry as quite a fair number of workmen are housed in quarters provided by the mills. Absenteeism generally varies between 5 per cent and 10 per cent. There is marked increase in absenteeism during the "Rabi" harvesting in April, in certain areas, if crushing is prolonged till that time, when agricultural labourers absent themselves in large numbers in order to attend to their own fields.

## RESPONSIBILITY OF A PROTECTED INDUSTRY FOR BETTER LABOUR CONDITIONS

The phenomenal development of sugar Industry is due solely to the protective tariffs and tax-payers have naturally a right to enquire if the workers have also shared in the general prosperity of the Industry. The Tariff Board of 1931 referred to the considerable employment by the sugar factories of the agricultural classes in the period between the kharif and rabi harvests when agricultural operations are slack and gave such employment as an additional requirement for protection to the Industry. The second Tariff Board of 1937 categorically supported the contention that the responsibilities of protected industry about labour problems are usually greater. The Tariff Board says :—

"In regard to the remuneration paid to the different grades of labour and to the tenure of employment, the situation is not generally satisfactory. In a protected industry it is to be expected that the labourer in the factory should also share in the benefits of protection, but we find that the interests of labour have not received the consideration they deserve"

This verdict was true not only in 1937 but even today.

## WAGES

The protection gave strength and prosperity to the industry but the expectations that the labour in the industry would also share the benefit of protection was far from being realised. On the contrary, the interest of labour did not even receive such ordinary considerations as they deserved. The wages decreased with the increase in prosperity of the industry. The average pay of a worker who was getting Rs. 11-4 p. m. in the year 1931-32 came down to Rs. 6/- p. m. in the year 1937.

The Upper India Chamber of Commerce, Kanpur, in the written memorandum submitted to the Royal Commission on Labour in India stated that Rs. 11-4-0 was the average actual monthly earnings of a coolie in the sugar works. Prof. Shibban Lal Saxena stated before the Joint Sugarcane Conference held at Lucknow, in September 1937 that in his inquiry he had found that the average wage of labourers was Rs. 6/- but in many cases they were paid Rs. 5/- a month and occasionally Rs. 4/- a month. He also complained that fines were heavy and dismissals arbitrary.

The Report of the Labour Investigation Committee 1944 says "Barring Gorakhpur, the wage level does not fall below 4 annas per day in any centre in India. In Champaran, Darbhanga and Madras however, there are workers whose basic wages are 'between 4 annas but less than 6 annas' and in Darbhanga, the modal basic wage also falls in that group. In other centres, the wages of the majority of workers lie in the group '6 annas but less than 8 annas.' In Madras on the other hand, the workers are fairly equally divided into two groups '6 annas to 8 annas' and '8 annas to 10 annas.'

The following table 81 gives the duly basic wages in different sampled centres :—

TABLE No. 81.

Wage groups.	Ahmednagar.		Meerut.		Gorakhpur.		Champan.		Darbhanga.		Madras.	
	No. of Workers.	%	No. of Workers.	%	No. of Workers.	%	No. of Workers.	%	No. of Workers.	%	No. of Workers.	%
Less than 4 as.	—	—	—	—	2	0.0	—	—	—	—	—	—
4 as. but less than 6 as.	—	—	1,165	17.5	4,579	69.0	2,361	69.3	486	19.0	33	1.4
6 as. but less than 8 as.	688	45.90	1638	44.8	—	—	485	14.2	1,666	65.0	893	37.2
8 as. but less than 10 as.	520	34.69	900	24.6	195	3.0	156	4.6	169	6.6	956	39.6
10 as. but less than 12 as.	80	5.33	169	4.6	138	2.1	101	3.0	74	2.9	213	8.8
12 as. but less than 14 as.	44	2.94	140	3.8	102	1.5	29	0.9	28	1.1	195	8.1
14 as. but less than Rs. 1	23	1.53	295	8.1	113	1.7	56	1.6	17	0.7	53	2.2
Rs. 1 but less than Rs. 1 1/2/-	8	0.53	45	1.2	51	0.8	48	1.4	14	0.6	15	0.6
Rs. 1 1/2/- but less than Rs. 1 3/4/-	4	0.27	176	4.8	109	0.7	40	1.2	14	0.6	14	0.6
Rs. 1 3/4/- but less than Rs. 1 7/8/-	28	1.87	70	1.9	53	0.8	49	1.4	25	0.9	17	0.7
Rs. 1 7/8/- but less than Rs. 1 1/2/-	28	1.87	46	1.3	8	0.1	24	0.7	12	0.5	5	0.2
Rs. 1 1/2/- but less than Rs. 2/-	4	0.27	66	1.8	42	0.6	11	0.3	6	0.2	6	0.2
Over Rs. 2/-	72	4.80	113	3.1	81	1.2	49	1.4	44	1.7	10	0.4
TOTAL .. ..	1,499	100	3,658	100	6,638	100	3,409	100	2,555	100	2,416	100

The deterioration in the condition of Labour in sugar factories was mainly due to the following reasons peculiar to this industry :

(1) In the beginning when a few factories were rapidly springing up, the required kind of labour was scarce and hence better conditions had to be provided for them. But with the development of the Industry the labour force also grew and its conditions deteriorated.

(2) The sugar factories are situated in small towns or nearabout villages where a large volume of idle labour is always available.

(3) The labourers being illiterate, were not themselves able to form trade unions. If outsiders helped the formation of Trade Unions, the employers resented it and did not accord recognition.

(4) Sugar Industry, being a seasonal industry, the unskilled labour was paid only for that part of the year during which they worked, and that rate, too much less than the rate prevailing in other industries. Moreover, employers were not bound to re-engage them in the next season. A Sub-Committee of the Indian Sugar Mills Association in 1939-40 recommended that unskilled workers should be granted allowance for the off-season months to the extent of 5 per cent of their monthly wages, the amount to be paid to the workers at the end of the subsequent season. This recommendation was, however, never followed with the exception of the technical hands who received half pay for the off-season, as a retainer. No other seasonal workers were granted this allowance.

In the Joint Sugarcane Conference held in September, 1937, it was decided that the minimum wage should be five annas a day. But their decision of the conference, to which the representatives of the sugar factories were also party, was not given effect to even upto 1939 by most of the factories.

In march 1940, Mr. N. C. Mehta, a spokesman of the U. P. Govt. pointed out before the representatives of the Gorakhpur Group Sugar Mills that Rs. 12/- p. m. should be paid a minimum wage to sugar factory workers with immediate effect. This minimum wage of Rs. 12/- was recommended as the absolute minimum wage for at least six months in a season by Tariff Board in 1937. The representatives of the mills were not agreeable to do so for the crushing season of that year. It may also be mentioned here that the second part of the Report of the Khetan Committee signed by Messrs. Shibban Lal Saxena, Shushi Ram and Kuldeo Narain Jha, recommended Rs. 15/- p. m. as the minimum wage for sugar Industry for five months.

The actual wage position in the sugar Industry from 1933 to 1946 i.e. just before the enforcement of the Sugar Factories Labour (Wages) Inquiry Committee, U. P. & Bihar, is summarised in table No. 82 :—

TABLE NO. 82.  
Monthly Salary of Unskilled Workers during 1939-January, 1947.

Month and year	WESTERN REGION			CENTRAL REGION			EASTERN REGION		
	Maximum	Minimum	Average	Maximum	Minimum	Average	Maximum	Minimum	Average
	2	3	4	5	6	7	8	9	10
August 1938	13-15-3	9-0-3	11-4-6	11-10-11	8-13-11	9-10-10	12-1-4	7-7-8	8-13-8
January 1939	17-10-4	10-6-1	12-12-2	13-10-4	8-3-4	10-1-1	11-2-3	7-4-10	8-10-1
August 1943	24-10-9	17-14-9	20-7-6	20-5-10	13-9-6	16-15-1	19-1-8	13-2-9	15-9-3
January 1944	29-11-4	21-5-8	23-8-4	22-7-7	14-8-2	16-13-10	21-12-0	15-8-0	17-9-2
August 1946	33-5-4	24-15-6	27-1-3	27-6-6	18-9-6	22-12-2	26-15-6	22-2-1	24-10-6
January 1947	42-10-6	34-12-1	36-15-9	28-2-11	30-15-9	33-11-9	41-11-2	36-1-9	36-9-8



### Bhatia Committee

In the crushing season 1946-47, the U. P. Government appointed in conjunction with the Bihar Government the Sugar Factories Labour (Wages) Committee, U. P. and Bihar, usually called the Bhatia Committee, to enquire into the demands of the workers in regard to wages, bonus etc. The Committee submitted its two reports to Government in January and February 1947. The findings and recommendations of the Committee which were implemented with effect from 1st October, 1946 are as follows :—

- (i) A minimum consolidated wages of Rs. 30/- p.m.
- (ii) Following increase to be given to different wage categories.

From Rs. 23/- to Rs. 30/-	..	..	..	an increase of Rs. 13/-	p. m.
From Rs. 31/- to Rs. 40/-	..	..	..	an increase of Rs. 12/-	p. m.
From Rs. 41/- to Rs. 50/-	..	..	..	an increase of Rs. 11/-	p. m.
From Rs. 51/- to Rs. 100/-	..	..	..	an increase of Rs. 10/-	p. m.
From Rs. 101/- to Rs. 200/-	..	..	..	an increase of 10%	of pay
From Rs. 201/- to Rs. 300/-	..	..	..	an increase of 7½%	of pay

Marginal adjustments to be made in the case of those drawing a pay between Rs. 300 and Rs. 322-8-0.

- (iii) Payment of retainer during off-season at the following rates :—

Skilled worker—50 per cent of total monthly wage as monthly retainer.

Semi-skilled worker—25 per cent of total monthly wage as monthly retainer.

Unskilled worker—10 per cent of total monthly wage as monthly retainer.

- (iv) 25 per cent of profits of a concern, after exclusion of taxes, but not excluding the amount to be set apart for reserves, to be distributed as bonus among the workers, such that workers get bonus in proportion to the monthly wage.

The above wages were continued to be paid in the initial stages of the crushing season 1947-48. But on account of continuous rise in prices, Government subsequently passed another order requiring employers to grant, in the following manner, further increases in wages.

OLD WAGES			INCREASES TO BE GIVEN		
Rs. 23	to	Rs. 30	An increase of Rs. 22	per month	
Rs. 31	to	Rs. 40	An increase of Rs. 20	" "	
Rs. 41	to	Rs. 50	An increase of Rs. 19	" "	
Rs. 51	to	Rs. 100	An increase of Rs. 17	" "	
Rs. 101	to	Rs. 200	An increase of 17 %	of pay per mensom	
Rs. 201	to	Rs. 300	An increase of 12½%	" "	

The minimum wage was thus raised from Rs. 36/-p. m. to Rs. 45/-p. m.

With a further rise in prices even after the enforcement of above rates of wages, Government ordered a further increase in prevailing wages of workmen in December, 1948 in the following manner.

WAGE LEVELS OF 1945-46						INCREASE OF
(1)	Rs.	22/8/-	..	..	..	Rs. 32/8/-
(2)	Rs.	23	to	Rs. 30/-	An increase of	Rs. 32/8/-
(3)	Rs.	31	to	Rs. 40/-	„ „ „	Rs. 28/14/-
(4)	Rs.	41	to	Rs. 50/-	„ „ „	Rs. 26/8/-
(5)	Rs.	51	to	Rs. 100/-	„ „ „	Rs. 24/-
(6)	Rs.	101	to	Rs. 200/-	„ „ „	24% of pay.
(7)	Rs.	200	to	Rs. 300/-	„ „ „	18% of pay.

The history of minimum wage is summarised in the following table :—

1939—40	..	..	..	..	..	Rs. 11/- p. m.
1945—46	..	..	..	..	..	Rs. 22/8/- p. m.
1946—47	..	..	..	..	..	Rs. 36/- p. m.
1947—48	..	..	..	..	..	Rs. 45/- p. m.
1948—49	..	..	..	..	..	Rs. 55/- p. m.

The minimum consolidated wage stands today at Rs. 55/- p. m. in the sugar industry in U. P. It compares very favourably with the average pay of Rs. 6/- per month in 1937.

### Overtime

Overtime is not generally worked in the sugar factories. The work is carried on in three shifts of eight hours each during the season. But if overtime is put in for any special reason, it is always paid for at double the ordinary rates.

### Dearness allowance

Dearness Allowance as an element in wages made its first appearance in 1941-42. Speaking about sugar factories in Meerut region, it has been stated in the Labour Investigation Committees Report on Labour Conditions in sugar factories, 1946—that dearness allowance is paid to all the units but at different rates. One unit pays at a flat rate of Rs. 12/- p.m. another pays four annas per rupee of basic wage subject to a minimum of Rs. 5/- and maximum of Rs. 75. In three units, the dearness allowance is paid at rates varying according to the scales of pay. In two of these units dearness allowance is linked with the cost of living Index Number of Kanpur." The same report states about the sugar factories in Gorakhpur region that, "all factories under reference have been giving Dearness Allowance to their employees since 1941-42."

The following table gives the details of dearness allowance in sampled factories :—

TABLE No. 83

(Taken from the Labour Investigation Committee Report on Labour Conditions in Sugar Factories—Page 34)

Factories.	System.	Basic Wages.	Rate of Dearness Allowance in force in 1944-45.	Date of introduction of Dearness Allowance.
1	2	3	4	5
1	Graded.	Rs. 1 to Rs. 80 Rs. 81 to Rs. 200 Rs. 201 and over	75% 49½% or a minimum of Rs. 61/8/-	1941-42,
2	"	upto Rs. 50 p. m. Rs. 50 to Rs. 56 Rs. 57 to Rs. 100 Rs. 101 to Rs. 200 Rs. 201 to Rs. 500	9 annas per rupee of the salary Rs. 28/2/- fixed allowance 8 as per rupee Rs. 50 fixed allowance. 10% of the salary.	1941-42.
3	"	Upto Rs. 25 Rs. 26 to Rs. 35 Rs. 36 to Rs. 50 Rs. 51 to Rs. 100 Rs. 101 to Rs. 200 Rs. 201 to Rs. 500 over Rs. 500	As. 8 per rupee. As. 7 per rupee. As. 6 per rupee. As. 5 per rupee. As. 4 per rupee. 7½% 5%	1941-42.
4	Proportionate Rate	50%	—	1941-42.
5	Graded.	Upto Rs. 90 Above Rs. 90	65% 50%	1941-42.
6	"	Rs. 1 to Rs. 25 Rs. 26 to Rs. 35 Rs. 36 to Rs. 50 Rs. 51 to Rs. 100 Rs. 101 to Rs. 200 over Rs. 200	8 As. per rupee 7 As. " " 6 As. " " 5 As. " " 4 As. " " 20%	1st Jan. 1942,
7	"	Upto Rs. 100 Rs. 101 to Rs. 200 Rs. 201 to Rs. 300 Rs. 301 and above.	50% 35% 30% 20%	Dec. 1941.
8	"	Upto Rs. 100 Rs. 101 to Rs. 200 Rs. 201 and above.	50% 35% 25%	Not Known.
9	"	Up to Rs. 25 Rs. 26 to Rs. 35 Rs. 36 to Rs. 50 Rs. 51 to Rs. 100 Rs. 101 to Rs. 200 Rs. 201 to Rs. 500 Over Rs. 500	8 As per rupee with a minimum of Rs. 12/8 7 " " " " Rs. 15/5 6 " " " " Rs. 18/12 5 " " " " Rs. 31/4 4 " " " " Rs. 50/- 20% of salary " " Rs. 100/- 17% " and maximum of Rs. 225/-	1st Jan. 1942.

Dearness allowance was continued to be paid on more or less the above rates upto the enforcement of the recommendations of the Sugar Factories Labour (Wages) Enquiry Committee, U. P. and Bihar during the crushing season 1946-47. Thereafter wages in all sugar factories have been consolidated and no separate dearness allowance is paid.

### BONUS

Bonus is generally regarded as share of labour in the profits of the Industry. However, all evidence on record show that the system of paying bonus to employees was not universally followed in the sugar factories in 1932. In fact in pre-war years, inspite of quite good profits, which the industry earned on account of the state protection, only a very few factories declared bonus. A few factories here and there sometimes granted

bonus, purely as an *ex-gratia* payment, to be paid wholly out of the sweet-will of the employer. Such bonus was only paid when there were substantial profits. The Labour Investigation Committee Report on Labour Condition in Sugar factories, 1946 which conducted enquiries in 1944-48, states that in Gorakhpur area "the award of bonus depended on the profits of the firms and this privilege was extended to those workers only whose services were good and satisfactory. The amount of bonus ranged between 15 days and three months' wages of the employees. The Sugar Sub-Committee of the U. P. Labour Enquiry Committee states in its report, on page 260 of the First Report Vol. I, Part II, that in 1938-39 the maximum bonus that was declared was one month's salary as for instance by Shamli and Mohiuddinpur. The figures for others are mostly not available. In 1943-44, eleven out of thirty three factories (surveyed) paid bonus varying from two months to three months pay, and as a percentage of net profits, these varied from 9 per cent to 19 per cent.

Bonus is paid to workmen on the basis of total earnings during the crushing season. It is paid at a flat rate on total production, according to a graduated scale, the rate of bonus per maund of sugar produced varying with the quantity of cane crushed by each particular factory.

In February, 1947 the Sugar Factories Labour (Wages) Enquiry Committee, U. P. and Bihar recommended that "25 per cent of profits of a concern after exclusion of taxes, but not excluding the amount to be set apart for reserves, should be distributed as bonus among the workers, such that workers get bonus in proportion to their monthly Wages." The Govt. accepted the recommendations and enforced them with immediate effect.

In January 1948, however, the industry agreed to pay bonus for 1946-47 at a still enhanced rate given below, as a result of the tripartite deliberations between the representatives of Employees, Employers and Government.

Amount of Cane Crushed during 1946-47.

Rate of bonus.

(a) Under 10 lakh maunds.	25 % of profits, after payment of taxes if there has been any profits. No bonus will be paid if there has been no profits.
(b) 10 to 18 lakh maunds.	2 annas per maund of Sugar produced.
(c) Over 20 lakh maunds.	4 annas per maund of Sugar produced.

In addition to the above Government also directed every vacuum pan sugar factory to pay an extra bonus of Re. 1/- per maund on all stocks remaining over from the 1946-47 crushing season, after the decontrol of sugar in March 1948.

For the crushing season 1947-48 Government issued an order in November 1948 directing every vacuum pan sugar factory to pay bonus to the workmen according to the following scales.

Amount of Cane Crushed in a Factory.	Rate of bonus per maund of production of Sugar during 1947-48.
Under 10 lakh maunds.	Annas.
10 lakh to 18 lakh maunds.	4
18 " to 20 " "	6
20 " to 30 " "	8
Over 30 lakh maunds.	10
	11

### EMPLOYEES AND EMPLOYERS ASSOCIATIONS

The first Association to be formed in the sugar Industry, namely the Indian Sugar Mills Association, Calcutta, an account of which is given elsewhere, belonged to the employers. The main object of this Association was to promote and protect

commerce and industries connected with sugar. The Association had also as one of its objects, the promotion of good relation between employers and employees, but nothing appears to have been done for the promotion of this object. This Association was averse to the recognition of trade unions formed with the help of outsiders and gave little attention to the formation by the workers themselves. The supply of labour being mostly drawn from the surplus rural labour in the neighbourhood, the workers considered it a boon to get an employment in the slack agricultural season. The employers sometimes refused to employ active trade union workers at the commencement of next season. The workers were, therefore, afraid of joining trade unions for fear of losing their jobs. In 1939, a trade union was formed in a Mill in Kathkuiyan (Gorakhpur) and was registered under the Indian Trade Union Act, 1926. In the war years of 1940, 1941 and 1942 no substantial progress was made in regard to the formations of trade unions in the sugar industry. A number of trade unions were registered during the years 1943 and 1944. Afterwards, this number went on increasing. Now there is one powerful federation of trade unions of sugar factories of the province namely, the Indian National Sugar Mill Workers' Federation, Kanpur with its branch trade unions in almost all the sugar factories. On the side of the employers there is the Indian Sugar Syndicate Ltd, Kanpur. Both of these Associations have been recognised by Government as representatives of workers and employers respectively. These Associations have extended their co-operation to government in the settlement of Industrial disputes and have helped in introducing a number of ameliorative measures for the workers from time to time. The success of the Works Committees in the industry, an account of which is given elsewhere in this chapter, is also largely due to the spirit of co-operation and accommodation on the part of these Associations. In this connection it may be useful to mention that the Indian Sugar Syndicate, the representative body of the Sugar Mill owners of U. P. and Bihar has set up a Labour Dept. of their own with a view to advise and assist the sugar factories in the respective regions in conducting the proceedings before the Conciliation Boards and in dealing with day-to-day problems and disputes as and when they crop up. Major H. S. Brar is the Chief Labour Officer.

Thus the growth of trade unionism among the sugar factory workers is a recent one. The seasonal nature of the industry and the lack of education among the workers had been two stumbling blocks in the healthy development of trade unions in this industry in the past. Now a healthy beginning has been made and the future of trade unionism in the industry is full of promise. The following table shows the growth of trade union movement in sugar factories in the U. P. from 1945-46 onwards.

Year	Number of Trade Unions in the sugar industry	Membership
1945-46	4	4,388
1946-47	28	22,172
1947-48	67	54,353
1948-49	87	Not available

### Prevention and Settlement of Industrial Disputes

It is reported that a strike occurred in the industry in 1939 and another in 1940. The demands of the workers related to increase in wages. The result in both the cases was unsuccessful. The years 1941 and 1942 were peaceful and also the years 1943 and 1944 to some extent. The following table shows the numbers of strikes, the number of workers involved and the number of man days lost for the years 1943 to 1948 and first eight months of 1949.

TABLE No. 84

Period	Total number of Strikes	Total number of workers involved	Total number of man days lost
1943	1	1,300	4,550
1944	2	650	1,300
1945	3	1,501	5,116
1946	2	970	1 512
1947	18	9,817	26,937
1948	13	8,560	19,319
1949 (Upto Oct.)	2	1,454	827

Trouble started brewing in the sugar industry from the beginning of the crushing season 1946-47. Government anticipated the course of events which were taking place and promptly appointed the Sugar Factories Labour (Wages) Enquiry Committee U. P. and Bihar. As a result of the enforcement of the recommendations of this Committee several threats of general strike in the industry failed to materialise. A strike engineered during the middle of the season and planned to grow into a general strike failed to gather impetus and gradually subsided after lasting for a few days in a few factories.

Towards the end of the crushing season 1946-47, however, trouble again started in the industry over the question of compulsory leave and matters connected with it. A Conciliation Board was accordingly appointed in April 1947 to promote a settlement in the matter. With the cooperation of the Indian Sugar Syndicate Ltd., and the U. P. and Bihar Sugar Mill Workers Federation, Kanpur now known as The Indian National Sugar Mill Workers Federation, Kanpur whose officers represented the employers and the employees respectively on the Conciliation Board, a settlement was reached in the dispute. The employers, however, failed to implement the settlement satisfactorily and agitation in factories started again. Government on its part dealt with the situation firmly and issued a number of orders for securing proper implementation of the settlement. The employers then, gave an unqualified undertaking to implement the Government orders by August 30, 1947 and the position was brought under control.

During the crushing season 1947-48, Government appointed a permanent Conciliation Board under the Chairmanship of the Districts and Sessions Judge, Lucknow, for the settlements of Industrial Disputes effecting the entire Industry.

In December, 1947, however, the U. P. and Bihar Sugar Mill Workers Federation (now the Indian National Sugar Mill Workers Federation) threatened a general strike forwarding twenty-two demands relating to bonus, security of employment, formation of Works Committees, retaining allowances, recognition of the Federation, standing orders and holidays. Government intervened and through the reasonable attitude adopted by both the parties, all important demands were dealt with suitably and a satisfactory settlement was arrived at, which avoided a major crisis in this premier industry of the province.

### Works Committees

As a part of the implementation of the Industrial truce resolution of December, 1947, the Governor of United Provinces decided to set up Works Committees in the factories throughout the province, and the sugar Industry was the first in which the Government ordered the setting up of Works Committees in April, 1948. In accordance with this order, Works Committees were formed in all the sugar factories in the province. The object of a Works Committee, which is composed of an equal number

of representatives of employers and employees, is to provide a recognised means of consultation between the management and workers and to prevent friction and misunderstanding. Matters to be dealt with by the Works Committees include distribution of working hours, fixation of shifts, methods of payment of wages, settlement of grievances of workmen, question of physical welfare, discipline and conduct, suggestions for improvement in methods or organisation of work, investigation of circumstances tending to reduce the efficiency and all steps that may be conducive to the harmonious relations between the workmen and the management.

The activities of the Works Committees during the year 1948 and during the first three months of 1949 are summarised below :—

	1948	January to March '49.
(1) No. of Works Committees ..	56	55
(2) No. of Meetings held ..	674	328
(3) No. of Cases referred ..	1,944	860
(4) No. of Cases decided ..		
(i) By unanimous vote ..	1,294	534
(ii) Otherwise ..	301	136
(iii) Total ..	1,595	670
(5) No. of Cases in which the decisions of the Works Committee were referred to Conciliation Boards ..	315	264
(6) No. of Cases in which the decisions of the Works Committee were given effect to by the employers ..	1,169	501

All decisions were arrived at in Works Committees by agreement on both sides. The foundation of the Works Committees has been well laid and we may reasonably look forward to smooth working, strikeless seasons, industrial harmony and increased production, except in areas where abnormal conditions may prevail.

### Conciliation Boards

Regional Conciliation Board at Lucknow, Meerut, Bareilly and Gorakhpur and a Provincial Conciliation Board at Kanpur, were set up for the sugar Industry in May, 1948. A Conciliation Board, which consists of one representative of the employers, one of workmen and one of Government who also acts as Chairman, provides a fair chance to the employers and workmen to resolve their differences by mutual discussions and understanding of each others points of view with an active assistance of a tripartite tribunal, which is not required to give its award unless an agreement cannot be reached between the parties.

The Provincial Conciliation Board decided two cases from January to June, 1949. No case was referred to it during the year 1948. The regional Conciliation Board for sugar decided 17 cases in 1948 and 116 in the first six months of 1949.

### Industrial Court

For providing a judicial forum for examining the equity and legality of awards made by the Conciliation Boards, an Industrial Court for sugar was set up at Lucknow in May, 1948. The Industrial Court consists of a District Judge as President, assisted by two assessors chosen one each from panels of representatives of the employers and the workmen. This Court decided 22 appeals in 1948 and 36 in the first six months of 1949.

The sugar Industry was declared a Public Utility service for six months under the U. P. Industrial Disputes Act, 1947 in August 1948 and again in the beginning of 1949.

Owing to the steps taken by the U. P. Government for prevention and settlement of industrial disputes in the years 1947 and 1948, when the number of strikes, workers involved and man-days lost were the highest, there has been a marked improvement in the employer-employee relations in the first ten months of the year, when there were only two strikes.

## **HOLIDAYS AND LEAVE**

The Labour Investigation Committee Report on Labour conditions in sugar factories, 1946, states on page 35 that "There were no regular closed days during the crushing season in any of the sampled units. The shifts were so arranged as to give 32 hours continuous rest in 13 days to each operative. The workers in the day shift were, however, allowed a weekly off-day. During the off season, Sundays are regular closed days. Important festivals both during the crushing and off-season are observed as holidays, but in none of the sampled units was a list of approved holidays maintained." In contrast to this a list of standard festival holidays numbering 17 in a year and to be observed informally in all the sugar factories in the provinces has been mutually agreed upon by the Indian National Sugar Mill Workers Federation, Kanpur and the Indian Sugar Syndicate, Kanpur. The list of holidays has been approved by Government.

## **STANDING ORDERS**

Standing Orders defining the relationship between that employers and the employees have been formed by the mutual agreement of the Indian Sugar Syndicate and the Indian Sugar Mill Workers Federation and enforced in all the Sugar Factories by an order of the Government, under the U. P. Industrial Disputes Act, the sugar industry having been exempted previously from the provisions of the Indian Industrial Employment Standing Orders Act.

## **HOUSING**

Most of the sugar factories are situated in rural or semi-urban areas. The workers in such factories often live in the rural areas adjoining the factories. In addition to this majority of the Mills provide quite a large number of residential quarters for the workers. These houses do not conform to the modern requirements of industrial housing, but usually, houses built by the factories are better than private houses in these areas, being pucca built with adequate floor space, good ventilation and sanitary arrangement. The types of quarters vary from a single room to a modern bungalow. The Hon. Mr. Sampurnand, Labour Minister, U. P. Govt. has announced in the tripartite conference on sugar industry held on 29th October, 1949 that Govt. have decided to spend Rs. 40 lakhs, being the proceeds from the sale of molasses, on labour housing and welfare schemes and on the development of sugar industry in the Province. Government recently advertised for suitable designs of workers' quarters and offered prizes. A legislation is also under consideration for utilizing the funds to the best advantages.

## **WELFARE ACTIVITIES**

All the factories have their dispensaries under a qualified doctor and other staff where from medical aid and medicines are given to the workmen and their families residing in the factory quarters.

Most of the factories have got rest rooms or rest sheds for workmen not residing on factory premises and changing shifts at night and some of them have started their own canteens.

Most of the factories have got their own schools for the benefit of the children of their workmen. All such factories have also libraries and reading rooms, where daily newspapers and periodical journals are kept for the use of the workmen. It may be mentioned that the employment of labour welfare officers in factories ordinarily employing more than 500 workers has been made compulsory by Govt. This order of the Govt. will go a long way in bettering the conditions of labour in



sugar factories. According to the latest decision of the Govt. two welfare centres would be opened during the crushing season 1949-50, one at Padrauna in the Deoria Dist. and other at Daurala in the Meerut Dist. So far there were no such centres for Sugar workers in rural areas, though some were functioning in urban areas.

### PROVIDENT FUND

A number of factories have started Provident Fund for the benefit of workmen. The rate of contribution generally is  $6\frac{1}{4}$  per cent for both the employers and employees but the membership rules vary from factory to factory.

### OTHER WORKING CONDITIONS

Other conditions of work in regard to hours of work, rest interval, weekly rest, health and safety, in sugar factories are governed by the Factories Act, 1948. The working conditions in respect of these classes of employees of vacuum pan sugar factories throughout the province, to whom the provisions of the Factories Act, 1948 do not apply, are governed by the U. P. Shops and Commercial Establishments Act, 1947, except that exemption has been granted to these factories from the operation of section 6 of the Act regarding 'spread over.'

*Memorandum submitted by the Sugar Technologist's Association of India, Kanpur to Tariff Board on the question of prescribing conditions for the improvement of manufacturing efficiency in sugar production giving a fair deal to workers, so as to ensure the fulfilment of the objects of protection.*

In the memorandum, the Association argues that efficiency in industrial production is dependent on three main factors (a) raw material (b) capital goods and (c) man-power. The raw material must be of the best quality and available in plenty. The capital goods or machinery must possess such design features as will give the best performance with the minimum attention and cost and the man-power must be skilled, sincere and well organised. The last factor is the most important as it controls also the first two factors. In order to attain the highest efficiency all the three factors must be safeguarded. It will not do to neglect any of the three.

The man-power in the Sugar Industry is distributed over three distinct sections viz :

- (i) Cane grower.
- (ii) Mill owner.
- (iii) Technical executive.
- (vi) Labour (skilled & unskilled).

The interest of cane grower, the mill owner and labour may be regarded to be sufficiently safeguarded, in the first case by the fixation of minimum cane prices, in the second case by the allowance made in the sugar price of 10 per cent of profit on block capital and in the last by the fixation of minimum consolidated wage. But the interest of the technical executive or the superior technical personnel employed in the sugar industry has still to be safeguarded.

The Sugar Technologists Association of India, therefore, wishes the Tariff Board to make helpful recommendation to Govt.

The problem of the technical men are :—

1. The first and foremost problem before the Technologists is the seasonal nature of their employment in the industry. The technical men concerned are :—

- (i) Technical Manager.
- (ii) Chief Engineer.
- (iii) Chief Chemist.

- (iv) Deputy Chief Chemist.
- (v) Deputy Chief Engineer.
- (vi) Shift Chemists.
- (vii) Shift Engineers.
- (viii) Lab.-in-charge.
- (ix) Workshop-in-charge.
- (x) Laboratory Chemist.
- (xi) Head Pan-man.
- (xii) Pan-man.

Except the Technical Manager, the Chief Engineer, the Chief Chemist and a couple of Shift Engineers, the rest of the above class of men are not employed on full salaries for all the 12 months of the year. They are paid full salaries only for the duration of season which in the last few years has hardly exceeded four months. For the remaining 8 months they are in some cases completely thrown out of employment and in some cases they are paid retaining allowances ranging from 15 to 50 per cent. of their full salaries and these too are not paid every month but at the end of the off-season when the employees concerned join again for the next season. The insecurity of service sometimes goes to the extent that employees who have worked in the same factory for 10 to 12 seasons are suddenly discharged during the middle of the season on grounds of incompetency.

2. The second problem is that their salaries and total emoluments are not commensurate with the present high cost of living and the technical education they possess, and hard and responsible work they have to do in sugar factories during the season. The grant of bonus is on the mercy and sweet-will of the employers.

3. The third problem is that their working hours have not been defined with the result that they can be summoned at any time and have to put in during breakdown or other difficulties any number of hours without any compensation.

4. The 'leave' terms are too meagre.

5. General facilities such as quarters, medical attendance, provident fund, good work reward etc. are in some cases not satisfactory.

The demands of the 'technical men' therefore are :—

1. Permanent (and not seasonal) employment on full salaries.
2. Standardisation of salaries and other allowances, provident fund, bonus etc. according to capacities of factories, skill and experience and due reward for merit.
3. Fixation of hours of work and due reward or compensation for extra hours of work put in.
4. Reasonable leave rules.
5. Better amenities of residential quarters, medical facilities etc. and
6. Scope for further education, research and development.

In this connection the conditions of employment in the Java Sugar Industry may be cited. These conditions are the utopia which technical men in this country dream of :—

Standard scales of pay and bonus for technical staff in the Java Sugar Industry.

Post	Scale of pay (in guilders)	Bonus per cent from profit
General Manager	1000 plus 300 car allowance plus 100 to 250 entertainment allowance	5 to 10 % of ne profit
Assistant Manager	650-25-800	2 %
Chief Chemist	450-25-600	1 %
Chief Engineer	450-25-600	1 %
*Assistant Engineer (Senior)	350-25-500	$\frac{1}{2}$ %
*Assistant Engineer (Junior)	200-25-350	$\frac{1}{2}$ %
*Assistant Chemist (Senior)	300-25-450	$\frac{1}{2}$ %
*Assistant Chemist (Junior)	200-25-300	$\frac{1}{2}$ %
Chief Field Supervisor	650-25-750 plus 150-car allowance	1 $\frac{1}{2}$ %
Field Man	450-25-650 plus 150-car allowance	1 %
Field Chemist	350-25-500 plus 150 car allowance	$\frac{1}{2}$ %
*Harvesting Officer (Senior)	250-25-350	$\frac{1}{2}$ %
*Harvesting Officer (Junior)	150-25-250	$\frac{1}{2}$ %

\* Seniority depends on the possession of a certain diploma in each case.

Although the above scales of pay refer to pre-war days they are enough to show that the employment is not only of permanent nature but that graded scales of pay plus prescribed rates of bonus have been provided.

In addition 15 to 20 per cent of profit is distributed as bonus, free medical treatment is provided to all members of technical staff and the families. Liberal leave rules have been framed for them.

Mr. R. C. Srivastava ex-Director I. I. S. T. and sometime president of Sugar Technologists Association, India, who submitted the memorandum before the Tariff Board on behalf of S. T. A. argued that if the above demands for the S. T. A. are met, they will mean only 1 anna per md. of sugar more than which is provided for in the calculation of sugar price but benefit the industry in the following ways:

- (a) Greater devotion to their work which is most essential in the processing of sugar, every stage of which requires careful control.
- (b) Greater opportunities for solving problems requiring sustained effort and thinking.
- (c) More brilliant men will be attracted to this industry with the result that technical skill and ability will go up.
- (d) Increase of efficiency and less cost of production.

## CHAPTER XVIII

### SUGARCANE RESEARCH AND DEVELOPMENT

The prosperity of the sugar Industry essentially depends upon sugarcane research and development. The importance of sugarcane research and the application of the results on the field are, therefore, obvious.

#### SUGARCANE RESEARCH

A few of the important results obtained and recommendations made for the improvement and protection of the sugarcane crop are given below :

#### UNITED PROVINCES

##### Varietal

Co 421, 527, 393, 395, 453 and Co 576 were found better than Co 312, 313 and Co 109 in the different tracts.

##### Agronomical

(i) Application of 120 lbs. of nitrogen and 4 to 6 irrigations were found to yield good results. Higher number of irrigations appeared to improve the juice quality to some extent. It has been recommended that the manurial dosage of 120 lbs. nitrogen should consist of 90 lbs. in the form of bulky organics and for green manure, about 15-20 lbs as light organics and 10-15 lbs. as sulphate of ammonia.

(ii) Soaking of cane salts in lime-wash or water before planting results in quicker germination than unsoaked seed, and the efficiency of the treatment is more pronounced in cases of deficient moisture conditions of the field and late plantings.

(iii) The best time for planting cane has been found to extend from the middle of February to mid-March in years of normal temperature and rainfall.

(iv) Molasses used as manure gave increased yield, two maunds of molasses gave an increase of one maund of cane per acre as will be evident from the following figures obtained from 11 experiments conducted at Shahjahanpur.

Molasses applied per acre	Average increase in Cane yields per acre
90 mds.	46 mds.
180 mds.	84 mds.
270 mds.	118 mds.
520 mds.	256 mds.

Molasses can be profitable as manure where its cost including cost of transport and application is less than half the price of cane.

(v) A great deal of work has been conducted at Shahjahanpur on green manuring with SANAI for sugarcane. On the average of 8 experiments conducted over a period of 7 years, SANAI green manuring has given about 150 maunds per acre increase in yield over control. At about Rs. 2/- per md. of cane, this gives a net profit of Rs. 300/- per acre. The total sugar outturn per acre is also markedly increased. SANAI green manuring leaves considerable residual effect after the plant cane crop.

(vi) Certain experiments were conducted on ratooning at Shahjahanpur from 1937 to 1944, and in the general result, a steady fall in yield was recorded in the successive ratoon crops. This was inspite of a uniform level of manuring to all the cane crops—plant and ratoon. The average fall in yield was 25 percent from plant cane.

to I ratoon and from I to II ratoon, and 14 percent from II to III ratoon. The juice quality showed improvement only from plant cane to I ratoon. On the basis of these experiments, only I ratoon is recommended to cultivators.

### Soil Work

Soil survey was completed for the districts of Gorakhpur and Deoria. Classification of soils has been done, and varieties, manurial dose and irrigation for the different types of soils recommended are :—

**Type I**—Co 356 and 395; 120 lbs. nitrogen, no irrigation.

**Type II**—Co 370 and 313; 60 lbs. of nitrogen and 40 lbs.  $P_2O_5$ , heavy irrigation.

**Type III**—Co 370, 356 and 395; 60 lbs of nitrogen; moderate and frequent irrigation.

### Mycological

There are about 23 different diseases which affect sugarcane in the U. P. Of these, red rot, wilt, smut, stinking rot, mosaic, red stripe and yellowing of leaves are of major importance. Red rot, wilt and smut cause appreciable damage to the crops of susceptible varieties. Stinking rot, mosaic and red stripe do not ordinarily cause much harm but when they occur in an epidemic form, they can cause a great deal of harm or loss. The following varieties were found to be highly resistant to red rot and smut.

Red Rot—Co 313, 393, 421 and 453.

Smut.—Co 453, 356, 421, Cos 109, 76.

Wilt.—Co 393, 313, 356, and 453.

### Entomological

Increasing doses of nitrogen alone decrease the top fever attack by 12 to 14 per cent whereas the attack of pyrilla was found to increase.

Plant cane was more susceptible to termite attack but less susceptible to white-fly attack than ratoon cane. Control measures suggested are :—

#### Termite

- (i) Salts to be dipped in 5 per cent D. D. T.
- (ii) Gammexane Do 25 at 80 lbs. per acre to be sprayed.

#### Pyrilla

- (i) 2 lbs of Geigy's 50 per cent D. D. T. powder No. 550 in 50 gallons of water was effective.
- (ii) 18 lbs., 60 lbs. and 90 lbs. of Gammexane (Agroicide 2) depending on size of crop was found effective.

### BIHAR

#### Varietal

The varieties approved for general cultivation in the province at different periods were as follows. :-

	North Bihar	South Bihar
1932—33	Co. 210, Co. 213, Co. 214.	Co. 213
1935—36	Co. 210, Co. 213, Co. 299, Co. 313, and Co. 331.	Co. 213, Co. 313, Co. 331.
1939—40	Co. 210, Co. 213, Co. 299, Co. 313.	Co. 213, 313, Co. 331.
1942—43	Co. 313, Co. 356, Co. 513,	Co. 313, Co. 513, Co. 331.
1945—46	Co. 313, Co. 395, Co. 508, Co. 513.	Co. 313, Co. 513, Co. 453, Cok. 32.
1948—49	Co. 313, Co. 395, Co. 508, Co. 513, Co. 453, B. O. 10, and B.O. 11.	Co. 313, Co. 513, Co. 453, Cok. 32, B.O. 10 and B.O. 11.

The varieties found suitable for different tracts are Co 453, 395, 622, Bo 10, 11, 21 and 24.

### Agronomical

The following manurial treatment gave not only high level of production per acre but also high juice quality.

(i) North Bihar—(Without FYM) 10 maunds castor cake with 3 maunds ammonium phosphate.

(ii) South Bihar—(Without FYM) 10 maunds castor cake and 1.5 maunds ammonium phosphate followed by 1.25 maunds of ammonium sulphate at the time of earthing.

Trials with trash and press-mud by ploughing it under the soil during hot weather showed significant increase. (80 maunds per acre.)

### Soil Work

North and South Bihar have been divided into the following three zones according to soil types.

	Area	Type of Soil
<b>NORTH BIHAR</b>		
1st Zone.	Northern halves of the Districts of Champaran Muzaffarpur and Darbhanga.	Typical pedelferic.
2nd Zone.	Southern halves of the Districts of Muzaffarpur, Champaran and Darbhanga.	Calcareous.
3rd Zone.	Almost the whole of Saran District together with a portion of extreme south west of Champaran District	$\text{CaCO}_3$ in surface layers Typical pedecols.
<b>SOUTH BIHAR</b>		
1st Zone.	Whole of Shahabad District.	Clayey sand.
2nd Zone	Whole of the Districts of Patna and Gaya.	Heavy gang at clay.
3rd Zone.	Southern halves of the Districts of Monghyr and Bhagalpur.	Reddish Brown.

Soil extensions service is run to give advice to cultivators regarding varieties, manurial treatment, irrigation etc., which would be most suitable for a particular type of soil

### Mycological

Varities found to be resistant against Red rot were Co 513, 453, 395, 385, Cok 32 Bo 9, 10 and 11.

### Entomological

The following control measures were tried :—

Pyrilla and white-fly—D.D.T. 0.5. per cent solution gave very encouraging results. Liberation of Trichogramma Minutum Ruby controlled stem and Root Borer and enhanced yield upto 100 maunds.

### Gur Chemistry

Co. 513, 313, 508, 299 and Bo. 4 are the outstanding good gur yielding varieties.

The design of the South Bihar furnace was further improved whereby its efficiency was improved. Gur stored under ash blanket was found to keep well.

## PUNJAB.

### Varietal

CoL 5 and CoL 9, Co396, 312 and 421 have been found suitable in the province. In addition to these varieties CoL 17, CoL 22, CoL 29 and CoK 30 are also promising varieties awaiting final selection. These are highly resistant to *Pyrilla* and are early maturing.

### Agronomical

First three weeks of March was found to be the best planting period. 140 lbs. N. P. A. was found to be the optimum dose for the sugarcane crop, on soil of average fertility. CoL 9 and Co 312 were found to be the best varieties for ratooning.

### Mycological

Treatment of setts against smut is 0.1 mercuric chloride or 1 per cent formaline followed by covering for two hours with moist cloth. Co 185, 313, 395 and 421 were found to be the resistant varieties against Top Rot and Wilt.

### Entomological

Nicotine sulphate, ash and lime in the proportion of 1 : 25 : 15 was found effective against *Pyrilla*.

### Gur Chemistry

Jullundar special and Sardar furnaces have been improved and gave better results.

## BOMBAY

### Varietal

Varieties found suitable for sali cane are Co. 413, 414, 421 and 419. These are much benefited by early sowing, i.e. in October-November instead of mid January. For Adsali crop (June-July planting) Co. 419, 421 and Co. 408 have been found suitable.

### Agronomical

Earlier planting in October and November gave more tonnage than the mid-January planting.

Ninety-five acre-inches inclusive of rainfall applied in uniform doses at interval of 10 days within a period of 12 months and a nitrogenous top dressing of 150 lbs. N. to all the water treatment, has been found to be the optimum quantity. On an average 115 in water and 300 lbs. N. had given the best performance and is recommended as a general measure.

### Soil Work

Genetic system of soil classification has been adopted as a result of which 12 distinct types of soil, named A to L have been identified. From a consideration of the properties a new name "Immature" tropical chernozems has been proposed for these soils in the world group of soil classification.

Reclamation of barren soils due to high alkalinity has been successful with  $\frac{1}{2}$  ton of sulphur in five tons of FYM or five tons of molasses per acre. Only cane-growing, with proper precautions, is capable of ameliorating such soils.

### Entomological

Liberation of the *Tricho-gramme* parasite has shown definite reduction of borer population and increase in tonnage.

**MADRAS****Varietal**

Co 419 was outstandingly the best variety introduced, giving an yield of 60 tons per acre. Co527 and Co449 are outstanding amongst the early varieties. Co419 was the best late ripening variety.

**Agronomical**

In Anakapalle tract 100 lbs. of N was found to be the optimum whereas for the Guddiyatam tract 200 lbs. of N over basal dressing of 10 tons of FYM gave the highest yield. Short crop seed material gave about 17.5 per cent more yield than the mature seed material.

By planting the late varieties, from April to May ryots can get better yields than by planting in March and can also grow a grain crop of rabi and paddy during the Navari (January to April) season. This would also help the 'grow more food' campaign to a great extent.

**MYSORE****Varietal**

HM 320, IC 8, 15, 21 26, 29, 33, 36, 39, 74, 136 and HM 661, 645 were the promising varieties. X-ray has been used as a factor in sugarcane breeding Myo-ray 205 and 206 are derivations of X-rayed cane holding such promise.

**Agronomical**

Nitrogen requirement of sugarcane in Mysore has been found to lie between 250 and 500 lbs. per acre.

**ORISSA****Varietal**

Co 285, Co 213 Co 421 and Co 419 were found to be the suitable varieties for the province.



## **SUGARCANE DEVELOPMENT**

The promising results of crop research can be translated into action in cultivators fields only by adequate development activities, actual demonstrations and sound propaganda. An account of the progress of development work in certain provinces is given below :—

### **UNITED PROVINCES**

The work of cane development in the United Provinces during the year 1947-48 was mainly concentrated in the gate areas of sugar factories. Only 63 out of 67 factories co-operated in the work. The total area under operation was 10.24 lakh acres and out of the supply of 16.61 crore maunds of cane 64.4 percent was supplied at gate. Stress was laid on intensive cultivation rather than on extension of acreage. With a view to achieving this object, the cultivator was provided with healthy seed of disease-resistant varieties, suitable manures and fertilizers, improved agricultural implements and irrigation appliances.

#### **Improved Methods of Cultivation**

The old 50 acre blocks continued to serve as demonstration centres to lay special stress on planting of improved disease-resistant cane of approved varieties, use of improved implements and fertilizers and adoption of improved methods of cane cultivations. In addition, zonal trials were also held at 32 representative centres to test the new varieties of cane seeds and the cultural practices under local conditions. More stress was laid on half field trials and demonstrations by field staff for a comparative study of the results obtained from the ordinary grower's methods and those from improved methods of cultivation. The area under improved varieties further increased by 3 per cent. while that under unapproved varieties decreased by 15 per cent.

#### **Manuring**

Intensive propaganda for large scale use of cakes and fertilizers was continued. The total distribution of such manures was 148,066 maunds of cakes and 151,618 maunds of fertilizers against 107,648 and 77,926 maunds respectively of the previous year. Propaganda for preparation of farmyard manure and digging of manure pits in pursuance of the "compost drive" in each village was made on an extensive scale to supplement the total requirements of manure by local means. The number of pits dug in the villages for compost-making was 40,646 and that filled 32,526. Compost was also prepared at factory gates by utilizing all the available waste, cane trash sweepings, cattle dung, cattle urine earth, etc. About 2 to 3 lakh maunds of compost was produced. The compost prepared in villages was expected to amount to 17,24,998 maunds.

Although the distribution of SANAI seed was very much handicapped by transport difficulties and its non-availability at favourable rates, 7,464 maunds of SANAI were distributed as against 3,717 maunds of the previous year.

A sum of Rs. 3,40,800 was sanctioned as subsidy on the use of cakes, fertilizers and for digging up of compost pits.

#### **Distribution of Improved Implements**

Implements numbering 13, 633 were distributed during the year as against 19,375 of last year. The indents for the same were for at least three times this number, but the implements were not easily available nor procurable at reasonable rates.

The progress in the construction of masonry wells, borings, supply of Persian wheels etc, was considerably hampered due to non-availability of raw material and want of timely despatch of the rest. In all 83 new wells were constructed and 127 repaired to serve as irrigation reservoirs.

### **Insect Pests And Diseases**

In the mid-Eastern Range, Red-rot appeared during the year under report in almost all the zones except Jarwal Road and Tulsipur, but due to the vigilance exercised from the very beginning and preventive measures adopted, the disease did not assume an epidemic form. Pyrilla was noticed in Basti district which was soon brought under control. In the Central Range Stem borer and top borer were noticed in the area of Gola Sugar Mills and Pyrilla in the area of Hargaon, Maholi and Hardoi factories and Red-rot in a few villages of the Barabanki district, but due to prompt and strenuous efforts no appreciable damage was done to the crop. In the Eastern Range 872 acres of cane in 281 villages were affected by red-rot. Pyrilla was detected in 25 villages affecting an area of 72 acres and top borer was found in 55 villages affecting an area of 151 acres. Prompt measures were taken to check further spreading of the pest. In the Rohilkhand Range there were only sporadic cases of Pyrilla and red-rot attacks.

Timely action was taken and the crops generally remained free from pests and diseases. The Western Range had a very serious attack of Pyrilla in the latter part of the previous year and with the close of the year certain portions of the area affected still had Pyrilla pockets. During the rainy season only mechanical operations were taken up and the fields were controlled with Gammexane and D. D. T. When the harvesting of the crop for the year 1947-48 was over, the effect of Pyrilla in certain areas was discerned and preventive measures were taken up at once. More than 3,000 labourers were engaged by the growers themselves with the result that practically no infestation was traceable in the range at the close of the year. A total sum of Rs. 37,957 was spent on cane protection work of which Rs. 18,713 were spent by the Entomologist to Govt. and Rs. 19,244 by the Department.

### **Publicity**

Publicity of the various activities of the Department was done through the meagre staff available. Field demonstrations on timely planting, line sowing, trench-sowing, proper ratooning, manuring etc, group conferences were held and field demonstration given exclusively for implements. Agricultural exhibitions, shows, demonstrations and lectures were arranged in many zones to educate the growers on the proper methods of sugarcane cultivation. The method of control of red-rot and other pests and diseases were demonstrated through cinema shows and films.

The five-year intensive Cane Development scheme subsidized by the Indian Central Sugarcane Committee has been launched in the Province, through which it is proposed to intensify the development work in gate areas, in order to raise the general level of production. It is proposed to administer to the needs of about 2,000 acres in the zone of each factory, where the yield is not at present delimited by natural and uncontrollable factors and where fields under proper development are capable of giving good yields. The ultimate aim is to raise the general level of yield in order to increase it from the present yield of 350 maunds to 700 maunds for acre.

### **BIHAR**

With the gradual replacement of Co 331, in South Bihar and Co 313 and Co 315 in North Bihar and also with Co 453 and Bo. 11, both the tonnage of sugarcane yield of sugar per acre have increased. The beneficial effect of large scale seed replacement from North to South Bihar during 1945-46 has reflected itself in both

quantity of cane crushed as also the sugar recovery output. The sugar recovery was 9.53 percent against 9.12 per cent obtained last year. The yield potential survey during the year showed increases in the acre yields of cane by 4.3 tons in South Bihar and 3.2 tons in North Bihar.

Arrangements were made at high government level for priorities and expeditious movement of wagons in order to deliver in time adequate supplies of manures and fertilizers to the growers. Increased quotas of ammonium sulphate and ammophos were obtained and thus the fertilizer position showed a definite improvement over last year. Oil cake was in short supply and would definitely need to be augmented with supplies from Bombay, Madras, etc.

Traction power continued to be weak due to large depletion in the cattle wealth of the province during the war years. Factory estates were getting over this difficulty by indenting large number of tractors and equipment for the estates as well as for hiring them out to the growers in their respective areas.

### **BOMBAY**

In Bombay experimental results obtained at Padegaon has already indicated the superiority of Co 475 and hence this variety was distributed in March 1945 to the sugar factories and some prominent sugarcane growers for further multiplication and large scale trials in comparison with Co 419. Only two sugar factories carried out these trials according to the layout plan given by the Padegaon authorities. Two other factories multiplied this variety, so as to get sufficient quantity of cane for mill tests. It is observed that Co 475 will be suitable for October and January plantings, in the case of Adsali planting it is found to lodge much more than Co 419, and as a result it is likely to yield less than the latter. Its susceptibility to smut disease is also reported from some of the localities. Cultivators have found Co 475 to be definitely better than Co 419 for gur making, as the farmer possesses softer stem and gives cleaner juice.

During the year 1947-48 the Padegaon Farm has supplied 19,290 three-budded sets of Co 475 to the sugar factories and the cultivators. A few sets each of Co 469, Co 449, Co 619, Co 605 and POJ 2961 were also supplied to the sugar factories who had asked for these.

The incidence of grass hoppers on the sugarcane crop was not as severe as in the last year. The total area affected was 4,475 acres out of which 3,878 acres were covered by different control measures. The main difficulty in the complete eradication of this pest is the maintenance of rantoons by the cultivators, which harbour the pest and thus allow it to spread from year to year.

Under the Genetic Soil Survey Scheme the estates of the sugar factories were being surveyed on a commercial basis and the work has been brought to a completion in 1947-48. Laboratory analysis of the soil samples collected previously were made and soil maps were prepared of the six properties for the total area of 34,651 acres, which had been surveyed during the extension period of the scheme. An area of about 6,000 acres distributed over five factory estates was also surveyed.

### **EAST PUNJAB**

In East Punjab, however, due to disturbances from the 15th August, 1947 to the 31st March, 1948 as a result of partition of the Province it was not possible to undertake cane development work on any appreciable scale. Efforts were directed to keep the factories running for a much longer time than usual, in order to enable the cane growers, specially the refugees (having no facilities to convert their crop into gur) to sell their cane to the factories.

The report, however, states that Demonstration plots have been laid out with improved varieties all over the province. It is hoped that new desirable varieties, such as Co. L. 9 will bring additional income both to the cane growers and the factories due to their higher tonnage and recoveries than Co 285 and Co 313."

### **DEVELOPMENT OF PALM GUR INDUSTRY IN INDIA**

It is said that there are about five crore tappable palm trees of which about one crore trees only are being tapped for the production of gur. There is already a huge pressure on the cultivable land by the cultivation of cane and if this pressure on land can somehow be relaxed in the form of increased production by gur by sources other than cane, a huge area under cane cultivation can be switched on to food crops. With a view to explore the possibilities of such a measure and to encourage the production of palm gur, the central Govt. have appointed a Palm gur Adviser and have directed all provincial Govts. to encourage the industry in their respective provinces. Most of the provincial Govts. have taken steps to organise training centres in palm-gur making and are awarding stipends to trainees.

## CHAPTER XIX

### RESEARCH ON MANUFACTURE AND USE OF SUGAR

#### INDIA

As has been described elsewhere, the Indian Institute of Sugar Technology, Kanpur under the direction of the Indian Central Sugarcane Committee undertakes research work on Sugar Technology, Sugar Chemistry and Sugar Engineering and provides adequate facilities for the training of students in these subjects. It is also responsible for the collection, tabulation and analysis of scientific control returns from factories and for making the results of a detailed study of these returns available to factories in the form of technical and statistical reports. Besides carrying on research on fundamental problems of Sugar Chemistry, it also acts as the medium for giving effect to the latest developments in the sugar industry abroad, consistent with the condition prevailing in this country.

#### TECHNICAL EFFICIENCY OF SUGAR FACTORIES IN INDIA

Statistics showing the efficiency of sugar production in India and other important sugar producing countries are shown in the following table. (Table. No. 85.)

TABLE No. 85

Comparative results for Indian Union and foreign countries.

S. No.	Technical Items	Indian Union.	Hawaii	Mauritius	Natal	Queensland	British Guiana	Trinidad
		1947-48	1946-47	1946-47	1947-48	1946-47	1946-47	1947-48
1.	Cane Quality							
	(a) Sugar percent cane	12.32	12.59	13.56	13.32	14.91	11.43	12.11
	(b) Fibre percent cane	15.89	14.76	12.58	15.80	11.83	14.39	15.20
	(c) Primary Juice Purity.	83.43	86.50	88.00	88.00	84.71	82.53	83.07
2.	Yield.							
	(a) Yield of Sugar % cane	9.85	10.76	11.35	11.20	12.31	9.01	10.13
	(b) Production of Molasses percent cane.	3.77	— —	— —	— —	— —	— —	— —
3.	Milling Results							
	(a) Added water % fibre	128.01	239.6	171.7	217.5	— —	156.5	144.5
	(b) Sugar % bagasse	3.21	2.03	2.82	2.54	2.78	3.27	2.52
	(c) Water % bagasse	48.17	42.80	44.80	50.46	50.15	46.37	48.12
	(d) Mill extraction	91.23	96.38	94.90	93.44	95.31	91.63	93.47
	(e) Lost Juice % fibre	46.42	20.93	35.70	34.93	35.49	49.77	36.40
	(f) Reduced Mill extraction.	93.37	97.01	94.90	95.01	94.93	92.89	94.80
4.	Sugar Balance							
	Sugar in Mixed Juice = 100							
	(a) Commercial Sugar	87.46	88.69	88.20	89.61	86.63	86.06	89.53
	(b) Press cake	0.98	0.73	1.01	0.34	0.71	1.09	0.46
	(c) Final Molasses	10.50	9.79	— —	— —	9.37	— —	— —
	(d) Unknown losses.	1.06	0.79	10.79	10.05	3.29	12.85	10.01
5.	Boiling House Results							
	(a) Mixed Juice Purity	80.80	83.67	85.20	86.24	— —	80.53	81.01
	(b) Clarified Juice Purity	82.33	— —	— —	— —	— —	— —	— —
	(c) Final Molasses Purity	33.00	39.83	39.20	41.10	46.42	33.09	31.38
	(d) Boiling house extraction	87.46	88.69	88.23	89.61	86.63	86.06	89.53
	(e) Reduced Boiling House extraction.	90.69	89.77	88.00	88.51	— —	89.81	92.12
6.	Overall Results							
	(a) Overall extraction	79.79	85.49	83.70	83.73	82.57	78.86	83.68
	(b) Reduced overall extraction.	84.68	87.09	83.51	84.09	— —	83.42	87.53

In interpreting the Indian figures, it is very necessary to bear in mind the wide variation in the figures from which these averages have been derived. These wide variations are the inevitable consequence of the wide range of physical and climatic conditions of the different cane growing tracts over which the Indian Sugar Industry is spread.

### **Quality of Cane**

From table, No. 85 it will be seen that with the exception of British Guiana and Trinidad the quality of cane crushed by factories in the Indian Union is the poorest. The fibre content is nearly the same as that of Natal and Trinidad but higher than that of other countries. Queensland has crushed cane of highest sugar content, although its purity of primary juice is lower than that of Mauritius, Natal and Hawaii. The purity of primary juice is highest in Natal.

### **Yield**

Figures for yield of sugar per cent cane show that with the exception of British Guiana, India has the poorest recovery. Queensland has the highest recovery. Next to Queensland is Mauritius.

### **Milling Results**

Milling performance for India is comparatively not satisfactory. Milling performance is best in Hawaii where added water per cent fibre is unusually high and is chiefly instrumental for this.

### **Sugar Balance**

As will be observed from the sugar balance in Table 85, India compares favourably with the other countries as regards total losses. Indian figures for total losses are lower than those of Queensland and British Guiana. Natal recorded lowest losses and next is Hawaii.

### **Boiling House and Overall Results**

An examination of the figures relating to the boiling house and overall performances of the different countries will show that the Indian performance is quite satisfactory. The reduced boiling house extraction for the Indian Union is better than other countries except Trinidad. The reduced overall extraction for the Indian Union is better than those of Mauritius, Natal and British Guiana. Natal has recorded the highest boiling house extraction and the highest overall extraction has been recorded by Hawaii.

If India has to come up to the standard of other countries it is essential that much more attention has to be paid for the improvement of the quality of raw material. Milling efficiency has also to be improved.

(cf. from the annual report of the Indian Institute of Sugar Technology)

### **Research work at the Institute**

The following are among the subjects on which research has been proceeding at the Institute.

1. Behaviour of colouring matters and other objectionable constituents present in the Khandsari sugar during the process of refining and the ultimate reaction on the colour of crystals formed.
2. Chemical composition of raw juice and its behaviour during the Sulphitation process with particular reference to rise in purity from raw juice to clarified juice in Northern India.

3. Studies on the cooling of high grade massecuites.
4. Practical limit of exhaustibility of final molasses in Indian sugar factories.
5. A study on the system of chemical control in Indian sugar factories for introducing a uniform system.
6. Composition and calorific value of bagasse fibre.
7. Preparation of levulose from sugar.
8. Preparation of wholemeal powder sugar from cane juice and syrup by spray drying.
9. Investigation of factors affecting the manufacture and keeping quality of Palm gur.
10. Refining of gur and khandsari sugar by alcohol solvent.
11. Determination of calorific value of bagasse fibre.
12. Manufacture of plastics from sugar and its by products.
13. Isolation of aconitic acid from molasses.
14. Chemical examination and refining of cane wax.
15. Rayon from bagasse.
16. Physicochemical studies on surface-active substances.
17. Crystallisation of sugar.
18. Theory of ash determination by two conductance measurements.
19. Continuous fermentation of molasses using high brix wort.
20. Food yeast from wood sugar obtained from bagasse.
21. Acetic acid, acetone and acetic anhydride from molasses.
22. Effect of ultra-violet light on the prevention of sugar from deterioration.
23. Deterioration of molasses during storage and its prevention.
24. Utilization of wood sugar in bagasse for the production of food yeast.

### **SUGAR RESEARCH AND TESTING STATION, FILARI**

The object of this scheme is to test the existing processes and machinery used for the manufacture of sugar and gur by the indigenous system, to conduct trials on new plants and processes and to popularise the improvement so effected by demonstrations and other channels of publicity for the benefit of *gur* and *khandsari* industries. The following research work has been in progress.

- (a) Testing of six-roller mill with imbibition arrangement.
- (b) Testing of bullock-driven kolhus manufactured by outside engineering firms.
- (c) Testing of modified Bilari Bel No. 2.
- (d) Keeping quality of Khandsari sugar.
- (e) Testing of hand-driven aerater for cooling gur and rab.
- (f) Comparative study of quality and the keeping quality of gur produced by (i) Deola clarification (ii) Lime sucrate and superphosphate clarification.



## **RESEARCH ON THE MANUFACTURE OF SUGAR CANDY IN INDIA, RAVALGAON SCHEME**

The scheme was started in Feb. 1941 with the object of testing the indigenous method of sugar candy manufacture, collecting technical data, and initiating research work for introducing new and improved plant and process for the manufacture of sugar candy. Later it was proposed to initiate research work on the utilization of candy mother-liquor for the manufacture of confectionery. The research work done during the season 1948-49 is given below.

- (a) Rotary Vacuum Candy Crystalliser.
- (b) Manufacture of bura from candy mother-liquor by spray-drying.
- (c) Studies on the manufacture of palmyra palm candy.
- (d) Manufacture of palm sherbat.
- (e) Studies on the analysis technique for the evaluation of the different confections.
- (f) Manufacture of homœopathic pills.
- (g) Working of the Blake Type jaw crusher.

## **SCHEME FOR SURVEY OF EXCESSIVE FUEL CONSUMPTION IN INDIAN SUGAR FACTORIES**

With a view to investigating the causes of excessive fuel consumption in factories and to devising suitable control measures and improvements which will help to eliminate altogether the extra fuel consumption and to save some quantity of bagasse wherever possible, the above scheme was initiated by the Indian Central Sugarcane Committee in Feb. 1948. The number of factories co-operating with the scheme is 15 only. The following observations were made during the survey of 6 of these factories.

1. Of these, three are with semi-electric driver, and the other three have individual heat unit and the total steam consumption of these factories is high due to low thermal efficiency of these units. It has been found during the investigations that evaporations at boilers in the case of semi-electric type plant varied from 56 per cent to 61 per cent on cane during trial period, while in the case of other three factories the evaporations varied from 80 per cent to 100 per cent on cane.

2. Moisture of bagasse varied from 43.5 per cent to 50 per cent and gross calorific value of bagasse from 4,661 to 4,142 B. T. U./lbs. The milling plant in each factory was studied in detail with a view to reducing moisture per cent in bagasse. Hydraulic load and setting details were discussed with the Chief Engineer of the respective factories to get the desired results.

3. The temperature of the feed water for the boiler varies from 160° F to 200° F in different factories. In case of factories with high figures for evaporation per cent cane, consumption of steam is high due to inefficient prime movers with the result that the total exhaust produced is much in excess of the boiling-house requirement with the result that much of the exhaust blows out. This is undesirable as the condensate returned to the boiler feed tank is much less and more make up water is used resulting in low feed water temperature. In some factories hot condensate which can be used for boiler feed is rejected due to inefficient traps and leaky tubes. This also is responsible for low feed water temperature. In case of two factories pipes for carrying condensates to boiler feed tank were unduly long and bare without any heat insulating covering thus resulting in low temperature of feed water.

4. The temperature at various stations were noted and temperature charts were prepared. These charts indicated that in some cases heat in the hot juices and condensates was not being conserved. Bad lagging of pipes with cheap material was responsible for undue fall of temperature and consequent loss of heat.

5. In one of the factories, in spite of sufficient juice heater capacity, the required rise of temperature of the juice was not taking place due to uncleaned heating surface of juice heaters, and eliminators had to be used to get the desired temperature rise. The result was that the exhaust was blowing out while reduced live steam was being consumed by the eliminators. In another factory the juice heater capacity was low and due to this eliminators had to be used. In two factories steam engine-driven spray pumps are located far away from the main factory building and uncovered or partially lagged steam pipes convey steam. Condensation losses in these long pipes was very heavy.

6. In the semi-electric type of plants sufficient exhaust was not available to meet the requirements of the boiling-house. Reduced live steam as high as 20 per cent to 25 per cent of the total is required only for boiling-house process work.

7. Preliminary advice was given to the factories surveyed regarding furnaces, minor changes and lagging. In case of Burhwal Sugar Factory it was found that the high flue gas temperature in 1947-48 was due to leaky baffles. The baffles were checked up and repaired with the result that the flue gas temperature went down from 700° F to 600° F in the season 1948-49, resulting in higher boiler efficiency.

8. As a result of investigation carried out at the Pilibhit Factory during 1947-48 (season and off-season) certain suggestions were made with a view to economise fuel consumption. As a result of this, extra fuel consumption has reduced considerably and during normal crushing period no extra fuel was used during the season 1948-49. It is hoped that after the complete survey in the season 1949-50 the factory will be self-sufficient in respect of bagasse.

## THE SUGAR TECHNOLOGISTS ASSOCIATION AND ITS CONVENTION.

The Sugar Technologists Association of India has contributed substantially to promotion of research in this country by holding conventions every year in which technologists of far and wide discuss research papers, pool their idea and exchange views. It has established an abiding place among the Association of the kind all over the world. The following are some of the papers discussed at the Convention held in Nov. 1949.

1. Drive for Steam and Fuel Economy at Ravalgaon—Review of 10 years' Progress by S. N. Gundu Rao, V. V. Lonkar & H. G. Kulkarni.
2. Some Considerations of Boiler Performance from the Angle of Boiler Feed and Fluctuating Steam demand in Sugar Factories by A. Sanghi.
3. Working of Filter presses and Sweetening Off of Cakes by J. M. Saha.
4. Kinetics of Colour Developments in Invert Sugar Solutions—Part II by K. S. G. Doss and S. K. Ghose.
5. Cooling of High Grade Masseccutes by D. R. Parashar and R. N. Agarwala.
6. Ash Percentage in Indian Final Molasses from Electrical Conductivity Measurements at 35°C. by K. S. G. Doss and K. K. Gupta.

7. Theory of Ash Determination by three-Conductance Measurements. by K. S. G. Doss and K. K. Gupta.
8. Resins from Molasses—Sugar and other Carbohydrates by M. S. Bhatnagar and S. Rai.
9. Aconitic Acid from Molasses by H. D. Sen and H. C. Srivastava.
10. Plastics from Sugar and Molasses by H. D. Sen and H. C. Srivastava.
11. Edible Syrup from Molasses by H. D. Sen and H. C. Srivastava.
12. Sugarcane Wax by S. N. Gundu Rao, H. G. Kulkarni and D. P. Kulkarni.
13. The Behaviour of Colouring Matters and other objectionable ingredients present in Khandsari Sugar during the Process of Refining by D. R. Parashar.
14. Neera, its Nature, Composition and Preservation by D. G. Walawalkar.

## Abroad.

### I CANE SUGAR MANUFACTURE

1. *Electrical Coagulation of Cane Juice Colloids and a new Sugar Technology*

D. N. Ghosh (Bull. Patna Sci. College, Philcs. Sec. 1948 [No. 18], 11-25.

#### Taken from Tate and Lyle

Raw juice can be clarified by electric coagulation, having iron plate anodes and cathodes and direct current. Pectic bodies are removed by direct contact with the anode, and by charge neutralization with the ferric iron produced by anodic corrosion; proteins are similarly removed, and also by absorption at the gas juice interface of uprising bubbles. Treating the slightly alkaline (p. H. 7.2) juice (drawn off at the bottom) with calcium superphosphate, and heating to boiling and filtering, completes the clarification. The process is shown to be economically practicable.

#### *Chemical decomposition of Cane Syrup and Molasses during storage*

(R. E. Heney and L. E. Clifcorn, Amer. Chem. Soc. 112th Meeting, Sept. 1947,

#### Taken from Tate and Lyle

Swells in cane are caused by  $\text{CO}_2$  liberation from unstable organic constituents rather than microbiological fermentations. Aconitic acid in Louisiana cane syrup gives  $\text{CO}_2$  on heating in the presence of Ca and Mg salts and this may be part of the source of gas. Synthetic resin ion-exchangers improved the syrups in most, but not all cases, showing that other types of reactions occur which are unaffected by the resins.

### II MOLASSES

#### 1. Sugar Recovery from Molasses (Tate and Lyle)

C. A. Klopenburg (Indian Sugar, 1948)

A new process is based on the fractional precipitation of Calcium glucosae and mono-Calcium Saccharate from alcoholic solution. The molasses is diluted with  $3\frac{1}{2}$  times its own weight of 40-70 per cent (by vol.) alcohol, a part of the insoluble salts, gums and pectins is precipitated and can easily be filtered off, whereby the purity is increased by 6-8 points. Finely powdered quicklime, in amount  $\frac{1}{4}$  to  $\frac{1}{7}$ th of the weight of molasses, is slacked in 40-70 per cent alcohol and added with

vigorous agitation, and the reaction is allowed to complete itself in a few hours at 45-70° c, with gentle stirring. A heavy precipitate of Calcium glucosate, Calcium Saccharate, and some free lime is formed. Calcium glucosate is actually formed almost immediately, Saccharate formation requires more time; fructose, in the presence of salts, is gradually transformed into glucose and a little mannose (negligible in amount,) the glucose being then precipitated. When liming has thus been carried out in the warm, little Saccharate should have been precipitated; carbonation of the suspension will however correct this, ;  $\text{CO}_2$  being passed until the solution is just neutral; Saccharate is then decomposed first. Immediate filtration removes all the Calcium glucosate, from which glucose can be recovered by thorough carbonation, and used for alcohol production by fermentation. The solution, containing the sucrose, is then further limed with  $\text{CaO}$  (1/10th the weight of molasses) in 70 per cent alcohol, to give mono-Calcium Saccharate, which is filtered off and washed with 70 per cent alcohol to remove salts. The Saccharate can be used in place of lime in sugar factories, or carbonated in alcohol or aqueous suspension for sugar recovery. The alcohol recovered from the saccharate filtrate can be used again to dissolve first batches of molasses, being brought up to strength with 95 per cent alcohol; by such re-use the salts dissolved in the alcohol will, when saturation has been reached, be precipitated with the gums and pectins in the first part of the process, adding value to this precipitate for use as manure. The economics of the process are discussed.

## **2. Recovery of Aconitic acid from Sugarcane Molasses (Tate and Lyle.)**

E. K. Ventre and R. J. Furse (Amer. Chem. Soc. 115th Meeting)

Aconitic acid is precipitated from B molasses as a dicalcium magnesium salt, by diluting the molasses to about 50° Brix, liming to approximate neutrality adding  $\text{CaCl}_2$  and heating to 90-95°C; for 4-5 per cent aconitic acid on solids, 50 per cent or more is precipitated, without decreasing the molasses purity for sugar recovery. The process can be continuous, the precipitate being collected in continuous centrifuges. The solubility of the salt on redissolving in 50 per cent sugar solution is considerably less than its apparent solubility in the molasses.

## **3. Production of Citric acid from Molasses**

J. Kovats (Przemysl Chem. 1948, 27, 360-363, cf. S. I. A. 1948,99)

### **III MEDICINE AND NUTRITION.**

#### **Manufacture of a sweet and milk-base product, and products obtained thereby (Tate and Lyle)**

J. Reymond (Fr. P. 942,679. Appl. 5. 3. 47 Gr., 20. 9. 48. Publ. 15.2.49)

Pasteurized milk is curdled and processed in a manner resembling that for soft cheese preparation, and is then melted into two stages, first with an alkaline melting salt and then with an acid melting salt. To the first melt, or in equal portions to both melts, there is added a total of 40 per cent by weight of sucrose or glucose (or a mixture); flavouring materials, etc., may be added to the second melt. The product is cut into suitable shapes for wrapping and distribution.

#### **2. Cane or beet Sugar is not only an agreeable substance but an irreplaceable, plastic and energetic food (Tate and Lyle.)**

T. Duran-Quecedo 21st Ann. Meeting, Asso., Cuba 1947 pp 407.)

Cane sugar is more rapidly absorbed than is dextrose in the stomach, and the blood sugar level returns to normal more quickly when sucrose is taken; less energy is expended in the absorption of sucrose; sucrose is more pleasant to taste in comparison than is dextrose.

### 3. White Sugar in Human Nutrition. (Tate and Lyle)

P. Morizot (Ind. Agric. et. Alim., 1947, 64, 377-378)

Polunical against Muller (Vie etc sante, 1947, Jan, Feb) who condemned the removal of minerals and vitamins in the production of white sugar. It is pointed out that milk, honey and vegetables provide an adequate source of the requisite minerals and vitamins, the case is not comparable with that of white flour. Changes in the technique of sugar production and refining in order to retain minerals and vitamins would be considerable and difficult.

### 4. Discovery of Sugar as a Medicine. (Tate and Lyle)

E. Podolsky (Sugar, 1948, 43 [6], 33-35)

A short review, including the oral administration or injection of sugar as a cure for vomiting, in sea-sickness, in pregnancy, and for the relief of sleeping sickness, in liver diseases, jaundice, ulcers, shock, nausea in pneumonia cases, and in particular in heart exhaustion diseases (using sugar alone or in combination with insulin); also in glaucorra, gangrene, some skin inflammations, varicose veins and mercury poisoning.

### 5. Intravenous Treatment of Anaemia with an Iron Sucrose Preparation. (Taken from Tate and Lyle)

H. G. B. Slack and J. F. Wilkinson (Lancet, 1949, i, [256], 11-14, 163)

## IV MISCELLANEOUS

1. The utilization of sugarcane bagasse for paper, board, plastics and chemicals. An annotated bibliography.

C. J. West (Sugar Res. Foundation Sci, Rep. Scr., Suppl. to No. 3 April, 1949, 19 pp)

### 2. Determination of vitamin B<sub>1</sub> in sugar products. (Tate and Lyle)

K. K. Appeller (Zeitschi Lebensm-unters u-Forsch, 1948, 88, 272-274)

The formaldehyde-azo test of Kinnersley and Peters (Bisch J. 1934, 28, 667; 1935, 29, 2369; 1938, 32, 1516) for vitamin B<sub>1</sub> has been found very satisfactory for vitamin determinations in the presence of sucrose, e.g. in hard caramels (containing c) as long as no metal salts or albumins are present.

### 3. Control of cleanliness of boiling surfaces, especially in tubes, by electrical conductivity. (Tate and Lyle)

H. Ruffer (Listy Cukr. 1948-49, 65, 148)

The presence of scale in an evaporator reduces the electrical conductivity through the walls to a much greater extent than it reduces the thermal conductivity. A rough check of the resistance will show when the scale is heavy; this can be carried out by use of a dry battery and an ohm-meter, voltameter or just a neon lamp, passing a current through suitable electrodes, with spring-loaded contacts, to reach the required positions.

### 4. Method of palm candy Preparation. (Tate and Lyle)

S. C. Sen and R. D. Sahi (J. Indian Chem. Soc., Industr. & News Ed, 1948, 11, 146-147)

As the palm juice ferments very quickly, 10 c.c. of 1 per cent formalin (with 1 c.c. of 10 per cent lime emulsion) are added to the collecting pitcher per litre of palm juice. The juice is boiled to half volume filtered through activated charcoal, reheated, strained, boiled and clarified, and then boiled to a thick mass, seeded, and crystallised slowly. The product contains 93 per cent sucrose and 1 per cent glucose and is brown and hard.

### 5. Method for Making Syrup. (Taken from Tate and Lyle)

G. C. Capdevielle (U. S. P. 2, 459, 991, Appl. 13, 12. 44. Gr., 25-1-49)

Cane molasses is diluted to 20-35 per cent total solids, treated with activated Carbon, bone char, or a bleaching agent, and filtered. Sugar (Surcose) is now added bring the total solids to 45-50 per cent, and the mixture is inverted with acid (or enzymes) and neutralized. Sugar is then again added to bring the total solids to 75 per cent. This syrup may be further purified by dilution, heating to 190° F., filtering, and reconcentrating. The syrup is particularly useful in the confectionery trade.

### 6. Centrifugal Control System. (Tate and Lyle)

J. Hertrich. Assr. to Western States Machine Co. (U. S. P. 2, 466, 988. Appl. 15-10-46 Gr. 12-4-49)

An improved mechanical organisation is described, utilizing new combinations of elements maturated manually, electrically and by fluid pressure, by which the various operations of the centrifuging of sugar mixture in a gear-driven centrifuge are carried out in a simpler and fool proof manner. The original should be consulted for details of the somewhat complex system of following abstract.

### 7. Liquid Sugar has many advantages. (Tate and Lyle)

E. Fisher (Food Packer 1949, 30 [7], 36, 40)

Liquid sugar, which cannot economically be transported over long distances, can be produced in small plants near consumers by use of ion-exchange refining; the process works economically on a scale as low as 400 bags of sugar per day and the capital investment is low. For many purposes the liquid sugar need not be decolourised.

### 8. Waxes of Sugarcane. (Taken from Tate and Lyle)

P. H. Hope and J. De La Mora (Anales. Escuela. Ncc. Ciene. Biol. [Maxico] 1948, 5, 59-64)

The clarification muds (cachaza) from the olive filters contain about 40 per cent of the wax from the cane. Extraction at 50-75% of the dried and powdered muds with solvents gave yields of 12.6 per cent with  $\text{CCl}_4$ , 12.3 per cent with  $\text{CS}_2$ , 13.5 per cent with benzene and 9.45 per cent with 30-75% petroleum ether, on weight of cachaza, after removal of fats and sterols (10 per cent of initial extract) with 96 per cent alcohol. The hard green wax could not easily be decolorized, but treatment with strong oxidizing agents followed by activated carbon, yielded a yellow, brown wax, m.pt. 76°c with good moulding possibilities. Other data were: density 0.963-0.973; saponification value 30-33; odine number 14-18; acid value 7-13; unsaponifiable 56-62 per cent,

## CHAPTER XX

### UTILISATION OF BYE-PRODUCTS AND TECHNICAL EFFICIENCY IN INDIA

The important bye-products of the sugar industry are (1) bagasse (2) Press-mud and (3) Molasses. The main use of bagasse is as fuel. Factories with efficient boilers, furnaces and efficient boiling house equipment save some bagasse which they use as fuel in the off-season and during the early part of the next season. A few factories sell their surplus bagasse for making straw board and cattle feed. Press-mud is generally used for filling ditches and in some cases the sulphitation press-mud is utilised as manure. Some use it as fuel. Efforts have also been made to extract cane wax from press-mud on commercial scale. Molasses is the most important bye-product of the sugar industry and is mainly utilised for the manufacture of alcohol and tobacco curing. In India about a dozen distilleries are making use of it for the production of power alcohol. Efforts have also been made to produce Butyl Alcohol and acetone from molasses on a commercial scale. The following table shows the above at a glance.

Bye-Products	Average production on Cane	How utilised
Cane Trash	10%	Paper Board & Packing Paper
Bagasse	32-34%	(1) Cattle feed (2) Straw Board and Paper (3) Activated Carbon (4) Manuf. of Cellulose
Press-Mud	2 to 3%	(1) Fuel (2) Manure and Fertiliser (3) Cane wax (from Sulphitation press-mud) (4) Dye Stuff & Filter aid (5) Metal Polish & chalk
Molasses	35%	(1) Ethyl Alcohol (2) Butyl Alcohol & Acetone (3) Tobacco curing (4) Cattle feed (5) Manure (6) Fuel (7) Lactic Acid (8) Food Yeast.

### TECHNICAL EFFICIENCY

The technical results of vacuum pan sugar factories in India for the seasons 1946-47 and 1947-48 are given below in Table No. 86.

	1947-48	1946-47
<b>Cane Quality</b>		
(a) Sugar % cane .. .. .	12.32	12.21
(b) Fibre % cane .. .. .	15.89	15.69
(c) Primary Juice Purity .. .. .	83.43	84.23
<b>Yield</b>		
(a) Yield of Sugar % cane .. .. .	9.85	9.88
(b) Production of Molasses % cane .. .. .	3.77	3.48
<b>Milling Results</b>		
(a) Added water % Fibre .. .. .	128.01	131.17
(b) Sugar % Bagasse .. .. .	3.21	3.11
(c) Water % Bagasse .. .. .	48.17	47.72
(d) Mill Extraction .. .. .	91.23	91.65
(e) Lost Juice % Fibre .. .. .	46.42	44.87
(f) Reduced Mill Extraction .. .. .	93.37	93.59
<b>Boiling House Results</b>		
(a) Mixed Juice Purity .. .. .	80.80	81.97
(b) Clarified Juice Purity .. .. .	82.33	83.10
(c) Final Molasses Purity .. .. .	33.00	32.96
(d) Boiling House Extraction .. .. .	87.46	88.11
(e) Reduced Boiling House Extraction .. .. .	90.69	90.41
<b>Overall Results</b>		
(a) Overall Extraction .. .. .	79.79	80.75
(b) Reduced Overall Extraction .. .. .	84.68	84.62
<b>Sugar Balance</b>		
Sugar in Mixed Juice = 100		
(a) Press Cake .. .. .	0.98	0.89
(b) Final Molasses .. .. .	10.50	9.74
(c) Unknown .. .. .	1.06	1.26
<b>Consumption of Extra Fuel % Cane</b>		
(a) Coal .. .. .	0.41	0.46
(b) Firewood .. .. .	1.194	1.264
<b>Consumption of Stores</b>		
(a) Lime % cane .. .. .	0.198	0.185
(b) Limestone % cane .. .. .	3.40	3.70
(c) Coke % cane .. .. .	0.35	0.367
(d) Sulphur % cane .. .. .	0.05	0.05
(e) Filter cloth in Sq. yds % cane .. .. .	0.19	0.18
(f) Lubricants in gallons per 100 mds. cane .. .. .	0.147	0.151

### QUALITY OF CANE

Quality of cane crushed in Bihar during 1947-48 had the highest sugar content as compared to other provinces. The purity of primary juice was highest in Eastern U. P. and Bihar. Fibre per cent cane was also highest in Bihar.

### MILLING RESULTS

Mill performance in all parts of India exceeded 90 which may be considered fairly satisfactory. Highest mill extraction was recorded by Bihar factories viz 92.30. In other words, Bihar has maintained its efficiency though other provinces have also shown slight improvement. The reduced mill extraction was lowest in Bihar and Bengal factories.



### **BOILING HOUSE AND OVERALL RESULTS**

The highest boiling house extraction was obtained in Eastern U. P. Reduced boiling house extraction was highest in Eastern Punjab followed by West U. P. The all India average was 90.69. The overall results was best in Eastern U. P. followed by Bihar. Similar was the case in reduced overall performance.

### **CONSUMPTION OF STORES**

Sulphur consumption was highest in Eastern U. P. followed by Bihar, consumption of filter cloth was highest in Eastern Punjab. Bihar continued to use highest quantity of limestone and coke.

## CHAPTER XXI

### SUGAR ORGANISATIONS

There are a number of sugar organisations representing the various interests such as sugar merchants, millowners and producers, and sugar technologists. The activities in brief of each of these organisations during the year 1948-49 are given below.

#### **I. Millowners and Producers.**

1. The Indian Sugar Mill's Association, Calcutta.
2. The South Indian Sugar Mills Association, Madras.
3. Indian Sugar Producer's Association, Kanpur.
4. Deccan Sugar Factories' Association, Bombay.
5. Bengal Sugar Mill's Association, Calcutta.
6. Bihar Sugar Mill's Association, Patna.

#### **II Merchants.**

1. The Kanpur Sugar Merchant's Association, Kanpur.
2. The Bombay Sugar Merchant's Association, Bombay.
3. The Bengal Sugar Merchant's Association, Calcutta.

#### **III Technologists.**

1. Sugar Technologist's Association of India, Kanpur.
2. Deccan Sugar Technologist's Association, Sakharwadi.

#### **Indian Sugar Mills Association—17th Annual Meeting.**

Delivering the presidential address at the 17th annual general meeting of the Association held on 13th December, 1949 at New Delhi, Mr. Shanti Prasad Jain appealed to the sugar industry to realise the target of 11 lakh tons fixed for the current season by starting the crushing campaign earlier than in the previous years. Mr. Jain anticipated that the industry would attain the target, but having regard to the consumption during 1949, it was necessary to achieve a figure of 12 lakh tons which the industry had produced during 1943-44. He said that the only remedy to sugar famine and high price lay in more production. He appealed to the Government to give full facilities to the factories to enable them to help maximisation of production. He regretted that the need for calculating lower recovery for price fixation was not fully appreciated by Government. The early start and late closing of factory will bring down recovery of sugar. An economic structure provided for transport of cane from long distances and covering cost of lower recovery would bring out increased production and consumer would get his sugar at a price of As. 14 or As 15 per seer. The common man would be contented if instead of getting no proper supply of sugar at controlled price, he obtained all his requirements even if they be at a slightly higher cost.

Referring to the criticism levelled against the industry regarding the sugar crisis he said that responsibility for this did not lie with the industry. (The views of Mr. Jain on this point have been given separately under sugar crisis elsewhere in the Manual)

Mr. Jain refuted what he considered as uninformed criticisms that Indian sugar prices were high when compared with world sugar prices. He said that while the retail prices of sugar articles have gone up six or seven times, the rise in the price of sugar was

only three times. The actual rise in the sugar rates would be reduced further if excise duty and cane cess were excluded. He mentioned that sugar was the most heavily taxed food article in the country. According to Mr. Jain, only nine countries in the world had sugar prices cheaper than in India as against 32 who sold at very much higher rate.

Dealing with protection, he pointed out that it was not a burden on the consumer as the industry had saved the country from wasting valuable foreign resources during difficult times.

Mr. Jain emphasised that improvement of cultivation of cane at lower costs was of paramount importance for increasing production, reducing production costs, and increasing the competitive capacity of the industry. In this connection he felt that cane development work in the U. P. and Bihar was far from satisfactory. He hoped that the Vijayaraghavachari Committee, appointed to investigate the progress of cane research and development, would give clear directions in the matter.

Protection to the industry was even at present essential for safeguarding the interest of the growers.

### RESOLUTIONS

The resolutions on the following subject were passed.

- (1) Maximisation of production. (2) Re-control of sugar. (3) Need for control over Gur and khandsari sugar. (4) Cane Development (5) Cane price. (6) Government's Labour Policy. (7) Concession to factories growing sugarcane. (8) Release of sugar to confectioners.

Regarding (2) the Association disapproved of the decision of the Government of India to freeze the stocks of sugar held by the mills on the 2nd September 1949. The Association regretted that Government did not consult the industry before implementing the above decision. Reimposition of control has resulted in rise in prices of 'Gur' and khandsari which Government have not been able to check so far. Had the Government allowed the law of supply and demand to operate, the prices would not have gone beyond Rs. 1-3-0 per seer at the most. The freezing order was a misconceived step. If the price of cane should have been fixed at Rs. 1-7-0 there would have been no crisis.

Regarding (3) Association wanted Government to restrict the production of gur and khandsari in factory zones and restrict their movement by rail or road.

Regarding (4) The Association pleaded that the cane development work should be entrusted to the factories and the entire cane cess collections should be made available for cane development work. Irrigation facilities should be immediately increased and a Government delegation consisting of all interests should go to foreign countries to study their conditions. Factories should be allowed to own model farms of 250 acres each and the roads in the vicinity of factories should be improved.

Regarding (5) the Association urged the Government to reduce the cane price to Rs. 1-7-0 per md. according to the recommendations of Indian Tariff Board.

Regarding (6) the Association regretted that while numerous concessions have been granted to the labour, little has been done to make the labour realise its responsibility. Factories should be allowed by Government to retrench surplus labour.

Regarding (8) the Association urged the Government of India to follow a more liberal policy in allotting sugar quotas to confectioners and also to include new confectioners in their allotments of sugar.

## 2. The South Indian Sugar Mills Association.

The membership of this Association amounts to 14 and all manufacturers of sugar from sugarcane in the Madras Presidency and States are members. The Association is affiliated with the Indian Sugar Mills Association, Calcutta.

At the beginning of the year under review, the Association was actively engaged in negotiations with the Government of Madras regarding the fixation of sugarcane prices for the 1948-49 season. A memorandum on the above subject was submitted to the Madras Govt. by the Association. Unfortunately the Government would not accept the Association's recommendation of a sliding scale of payment based on the sugar selling price and recovery. Subsequently, the Madras Govt. introduced the Madras Sugar Factories Control Bill which this Association fought inside and outside the legislature with all the powers at its command, on the grounds that the bill was discriminatory and unnecessary. Eventually, a number of amendments were accepted which to some extent met the objections raised by the Association.

Sugar produced by the members was sold in accordance with a zoning system introduced by the Association which worked well until prices began to rise in July '49 by which time however the stocks left with members were very small.

## 3. Indian Sugar Producer's Association, Kanpur.

The 38th annual general meeting of the members of the Association was held at Kanpur on the 24th January 1949 under the chairmanship of Mr. A. Caws. During his presidential address, Mr. Caws dealt with the present position of sugar industry in India and said that it was somewhat precarious. The large carry over of 2½ lakh tons of sugar from the previous year of 1947-48 was according to Mr. Caws, not due to high price of sugar but due to the transport difficulty in the early part of the selling year. It was only towards the end of the year that wagons became available and this to his mind was the main reason for the large carry over. The stoppage of export to Pakistan due to high price of sugar was also instrumental in the accumulation of sugar stocks. Mr. Caws expressed gratitude to the U. P. Govt. in agreeing to postpone recoveries of cane cess and part of cane price. Mr. Caws strongly felt that the installation of any new sugar plant should be held in abeyance for the present.

Mr. Caws referred to the question of protection to the sugar industry beyond 31st March 1949 and said that un-informed criticism of Indian Sugar Industry in certain quarters in regard to the continuance of protection should stop. He was unable to appreciate the fact that the present price of Indian sugar and the present necessity for continued protection should in any way be ascribed to the manufacturers. He said that efficiency of factories in India compares favourably with the efficiency in foreign countries but the technical efficiency alone do not give the complete picture since economically it may be unsound on occasions to maintain a high level of technical efficiency. The reduction in the cost of manufacture, according to Mr. Caws can be done only by labour saving devices and thus reducing the high labour charges.

The cost of cane is responsible for nearly 70 per cent of the production cost of sugar, and it is now accepted that any advance which can be made in the sugar industry must be made in the direction of a cheaper raw material. He dealt with the cane development work and said that its object should be to develop a variety acceptable both to the growers and to the factory who wish to obtain maximum recovery.

He suggested that cheap manure and regulation of grain prices is one solution. He said that cane development policy should be regulated on provincial basis and should not be particularised to individual factory areas.

Mr. Caws hoped that in future an economic system based on the purchase of cane on the basis of sugar content, in other words "raw sugar", will be developed in this country also through the Cane Co-operative Societies. He denied the charge levelled against the factory owner for their apparent antagonistic attitude towards the Societies. Mr. Caws said that the commission paid to the societies was more than sufficient to cover their expenses and leave a margin for cane development to which the societies are not paying full attention.

Mr. Caws admitted that Govt. have realised the urgency for cane development and the Indian Central Sugarcane Committee is doing valuable work in sugarcane reasearch.

#### **4. Bengal Sugar Mills' Association**

At the sixth annual general meeting of the Association held in Calcutta on March 10, 1949 Mr. S. R. Jalan, Chairman of the Association, narrated the travails of Bengal sugar industry during his presidential address. Mr. Jalan complained of Pakistan's unhelpful attitude and said that the ex-factory price of sugar agreed to by the Indian Sugar Syndicate for the season 1948-49 was hardly sufficient to leave any margin and was unjust to most factories in West Bengal in view of the shorter season and higher manufacturing cost in province.

In East Bengal sugar continues to remain under government control. Mr. Jalan said that the price of Rs. 33-8-0 per md. ex-factory, fixed by East Bengal Govt. was too much delayed and it ignored the actual cost of production of the factories in the previous season and estimated increases in almost every cost-factor in the current season. He accused the East Bengal Govt. for not placing full facts before the Central Pakistan Govt. Mr. Jalan said that representations have since been made to the Central Government.

#### **Difficulties of Stores**

The sugar Mills of East Bengal suffered immense difficulties in arranging the supply of essential stores for their factories and cane farms. He said that large industries cannot function in East Bengal unless trade between India and Pakistan is free.

The immediate problem which faces the sugar industry in East Bengal is lack of timely disposal of production which has accumulated to the extent of about two lakh bags. Similarly no arrangement has been made by the Govt. to dispose of the stock of molasses. He drew the attention of East Bengal Government to these questions. In the matter of molasses price, Mr. Jalan contended that injustice is being done both in East & West Bengal by sticking to the old price fixed in 1945-46. He pleaded for the revision of in the light of changed circumstances. Mr. Jalan pointed out that it was sugarcane research and development which was of supreme importance to the industry from the long range point of view and in which both East and West Bengal lacked completely. Besides protection, Government should carry out the schemes for improvement of cane varieties and cane cultivation on modern lines. He informed that a development scheme for East Bengal has been submitted by the Association to the East Bengal Govt. and it was hoped that they will accept the same. Mr. Jalan was glad to know that five-year development scheme for West Bengal has been accepted by the I. C. S. C.

He complained that dues of the sugar mills against the Government of undivided Bengal still remained unpaid. He said that both the Dominions should initiate action for an impartial examination and payment of long outstanding claims.

### **5. Bihar Sugar Mills Association, Patna Bihar Mills' Move for Separation.**

On April 25, 1949 at its annual general meeting, the Bihar Sugar Mills' Association very unexpectedly adopted a resolution moved by the Chairman, Mr. R. L. Nopany, that it was the Association's considered opinion that a separate selling organisation was an absolute and immediate necessity and that, therefore, the Association be suitably reconstituted to take up the sale of sugar and its products. Earlier, on April 23, the Bihar Government had notified an amendment which would enable the Bihar mills to secede from the Indian Sugar Syndicate and form any other selling organisation recognised by the Government.

Mr. Nopany detailed at length the sponsor's case for separation of the Bihar industry's affairs from that of the U. P. The Bihar Development Minister Dr. Syed Mahmud, however, sounded a note of caution. He considered separation a serious matter which must not be hastily pushed forward with. The Provincial Govt. should consider all implications before they would sanction it since several long range considerations, including the prospect of inter-provincial competition were involved.

Dr. Mahmud dealt with the subject of wage levels in Bihar factories, and also referred to the unhelpful attitude of the industry towards the Government's schemes. Dr. Mahmud explained the five-year scheme estimated to cost Rs. 18. crores for the development of sugar industry in Bihar.

Mr. R. L. Nopany, presiding over the meeting expressed alarm at the steep fall in the production of sugar, the gradual deterioration of cane yields and sucrose content and the growing indiscipline among labour. Mr. Nopany traced the plight of sugar industry in Bihar and made a strong plea for tackling the problems of Bihar factories separately from U. P.

### **Disadvantages to Bihar.**

In Mr. Nopany's opinion the first and the most immediate reason for the fall in production of sugar in Bihar has been the Government's policy to link Bihar with the United Provinces in all matters bearing on the sugar industry. Both in regard to price of cane and sugar, the two vital issues facing the industry, the U. P. interests have been dominating to the serious detriment of the industry in Bihar.

Mr. Nopany dealt with cane and sugar prices and tried at length to explain as to how the cane growers and sugar factories in Bihar have been suffering by their association with the U. P. He discussed the cane development scheme of the Bihar Government and assured the Government of the fullest co-operation of the industry in their constructive efforts. He suggested that cane Co-operative Societies should also be made to associate with this scheme.

### **New Units.**

Regarding 38 new units sanctioned by the government, Mr. Nopany wanted to know the basis on which the allocation to various provinces and states has been made. He wanted to show that production can be increased even with the existing factories to the extent desired by the Government. Now after the partition of the country, sugar to the extent of 2½ lakh tons, previously consumed by territories forming Pakistani Dominion, will be surplus and as such he was sure that there was no need for adding new units.

Mr. Nopany tried to show that the industry in Bihar had had to suffer losses due to the low price of sugar during 1948-49 but he said that by accepting the price of Rs. 28-8-0 for the season 1948-49 the industry has given proof of its bonafides and its real desire for co-operation. In the last he referred to the prevailing indiscipline

amongst the labour which has seriously undermined industrial efficiency. He regretted that the government's labour policy has done little to improve discipline among workers. He also referred to the problem of excess labour force employed by most of the factories in the province and desired that the factories should be permitted to adjust their labour supply consistently with their efficiency.

### **Deccan Sugar Factories Association, Bombay**

The 10th Annual general meeting of the Association was held on the 14th November 1949, at Bombay. Mr. W. Jenkins presiding over the meeting observed that there was no possibility of an increase in the output of white sugar by Deccan factories this ensuing season.

Mr. Jenkins pointed out that with the present extremely attractive prices of 'gur' made from cane, large quantities of cane, which otherwise might have been available for the manufacture of white sugar, would be diverted to jaggery. On the basis of this year's consumption, he estimated that there would be a substantial short-fall between production and consumption of white sugar next year.

Regarding the application of the Model Standing Orders, to agricultural labour on sugarcane plantation Mr. Jenkins said that it would involve an additional financial burden on the sugar industry and occasion more labour disputes. He said that before the matter is finally decided, the Govt. should formulate a uniform policy in this regard. Mr. Jenkins then spoke on the disposal of molasses. He said that a great handicap to the industry was official restriction placed on the disposal of molasses a result of the prohibition policy. The provincial Govt. have imposed on factories heavy license fees ranging from Rs. 50 to Rs. 10,000 merely for possessing molasses.

Mr. Jenkins then complained against the new taxation in the form of cane cess which will bring to Bombay government no less than Rs. 50 lakhs per annum. He suggested that this amount should be utilised in the further developments of sugar production. He opposed Sales Tax on sugar as it was understood to be included in the Excise Duty.

Regarding sugar price Mr. Jenkins said that unless cane price was not reduced there could not be any hope of cheap sugar. He blamed the Central Govt. for the rise in sugar price as the latter took no action even when knowing the depleting stock position of sugar in the factories through the fortnightly returns submitted to the Central Govt. Mr. Jenkins said that as the income of the labour has gone up, the consumption of sugar has increased. He also admitted the scandalous profiteering by completely unscrupulous dealers in sugar in recent months which was due to commercial morality being low these days.

As the Deccan Sugar Estates could produce sugarcane yields three times as high as the U. P. or Bihar, and also get a much higher recovery, Mr. Jenkins suggested in conclusion that Government should provide more facilities to Deccan factories.

## **MERCHANTS**

### **7. Bombay Sugar Merchants Association, Bombay**

The fourth annual general meeting of the Bombay Sugar Merchants' Association was held on 16th March 1949 at Bombay. In the course of his presidential address, Seth Maneklal Ujamshi said that with the removal of control, sugar has been made available in adequate quantity to the consumers. But the price level was still high. He criticised the increase in the price of sugar from Rs. 20-14-0 per md. to Rs. 35-7-0 per md. as it allowed a big margin of profit to the millowners. This, he said was realised by the government after a lapse of time. The government in their ignorance of the methods and mentality of factory owners believed whatever they said. His Association drew the attention of the government towards the fact that while merchant's stocks were purchased at the old rates, the factories sold their old stocks at Rs. 35-7-0

and cornered the entire difference in price. Later on this was discovered by the Govt. who left only Rs. 5-6-0 per md with the factory out of the increase rate per md. He charged the producers that they were not satisfied with Rs. 35-7-0 and hence had charged Rs. 40/- to Rs. 50/- per md. To defeat this game of producers, the merchants announced the sale of sugar at -/8/- per lb. for the whole year.

Mr. Maneklal Ujamshi dwelt at length the various ups and downs through which the sugar price passed and said that while hardly 20 per cent of the merchants made meagre profits, the manufacturers made enormous profits. He said that by increasing the price of sugar from Rs. 20-14-0 to Rs. 35-7-0 the government inflated in value the production worth Rs. 60 crores to one hundred crores of rupees. There was no parallel in the history of Indian industries that the Government were so much misled by the industry to serve its own end.

He briefly explained as to how the public is being exploited by the monopoly of the Indian Sugar Syndicate.

(1) The Syndicate is not legally bound to sell sugar at the fixed price.

(2) The government has fixed the price on the basis of D 24 which is hardly 3 per cent of the total production. The remaining 97 per cent represents higher grades. The public generally consumes D 26 and above, whose prices are higher. This cost paid by the public comes to nearly Rs. 75 lakhs. In case any merchant criticises the Syndicate, the Syndicate adopts vindictive methods and his quota is stopped.

(3) Some of the factories are stamping higher grades on the bags and thus make an extra profit of about Rs. 25 to 50 lakhs.

(4) The Syndicate has invented a new method of charging higher prices by way of "freight advantage" which comes to an average of 4 annas a md. This freight is paid by the merchants. Neither merchant nor the government is fully aware of this.

(5) The Syndicate has adopted a method of "quota system" which helps in creating artificial scarcity and thereby getting higher prices.

(6) Some of the mills were charging higher price but issuing bills of the lower price, pocketing the balance in cash. The merchants so long as they are in trade have to submit to such unscrupulous tactics.

Mr. Ujamshi further said that when the price of cane, wages, and sugar price are all fixed by the Government where was the necessity for the existence of the Syndicate. But 12 years have passed and still this monopolistic body was continuing.

### **Price of foreign sugar**

The cost of sugar in Java and Cuba is very low although the price of Cuban sugar is nearly Rs. 15 per md. c. i. f., still they are trying to reduce the cost, and this price may go down to Rs. 12 a md. The USSR may supply sugar even at still cheaper rate. This might prove a heavy blow to the sugar industry.

### **8. The Bengal Sugar Merchants' Association, Calcutta**

The annual general meeting of the Association was held on the 2nd July 1949 at Calcutta, under the presidency of Sri Shantilal Kanji Shah. In the course of his presidential address, Mr. Shah pointed out that although the price of sugar during 1948-49 has been reduced by Rs. 7/- per md, it was still higher to the world prices. He hoped that next year more caution will be exercised by the Govt, in deciding upon the new season's prices at a reasonable level.



He said that in the past the prices have been determined on mere recommendations of the Millowners' organisation, without any consultations with merchants or any of their recognised Association. He was grateful to the Tariff Board for recommending that the Government should investigate into the question of price margins, extras for the freight advantage, working of grades on bags etc. apparently these were pointed out by Merchants' organisations.

Mr. Shah was afraid that although it was expected that season will end with a carry over of about three lakh tons of sugar, it seemed that there would be practically no carry over at all. This may be attributed to the comparatively lower prices of sugar, better transport movements and a fall in production. Mr. Shah complained that too much stock of sugar has moved into Assam due to railways providing wagons in large quantities for Assam all of a sudden. It can be assumed that it was due to the Syndicate's policy. Mr. Shah said that in future such thing should be resisted.

Mr. Shah said that lately there has been co-operation between the Association and the Syndicate but he complained that factories are not prepared to fully carry out the directions of the Syndicate. Several factories are marking at least one grade higher to the actual contents of the bags. He pleaded for the removal of this malpractice. Mr. Shah complained against the Syndicate in regard to the latter's refusal to vary the freight advantage fixed by them.

He casually mentioned the recent rift between U.P. and Bihar sugar mills. Mr. Shah informed that factories were no longer sticking to the prescribed Syndicate prices but are selling sugar at higher prices. From the point of consumers, prices can go down by open competitions only and this can be done by abolishing the Sugar Syndicate. He hoped that at the next All India Sugar Conference at Bombay merchants will show the required zeal and put up a joint front on the various problems of trade vis a vis The Indian Sugar Syndicate. He admitted that railways have given sufficiently large and quick transport facilities recently.

He referred to the damage to sugar consignment at Mokameh Ghat and hoped that railway will minimise it. He complained against inferior gunny bags and faulty stitchings by the mills but with the introduction of the Railway Risk freight, this difficulty will be removed.

The Association had issued press notes on 6th August 1949, regarding the position of sugar stock, and on 31st October 1949 giving a review of the sugar position at the end of October 1949. They have also given evidence before the Indian Tariff Board in regard to the question of protection to the sugar industry beyond 31st March 1949 and have also submitted a Memorandum in this connection. Their views are given in chapter X of this Manual.

## TECHNOLOGISTS

### **Sugar Technologists Association of India**

The Association continued to register a rise in membership. The total membership stands at 573 as against 555 last year. At the request of the Director, Indian Institute of Sugar Technology, the award of Rai Sahib N. C. Kapoor Sugar Industry Cup has been taken over by the Association from this year.

### **Uniform System of Chemical Control**

The scheme was run successfully for the second year in succession by the Association and will be pursued further.

Training to seasonal technical staff of sugar factories in sugarcane cultivation was continued for all technical staff of sugar factories. It is proposed to convene *International Society of Sugarcane Technologist* to hold their next conference in India.

The Association representative in various government Committees evinced keen interest in the deliberations of the Indian Central Sugarcane Committee. Silver Jubilee of the Association may be held in 1950.

A memorandum dealing with the plight of technical men in sugar industry has been submitted to the Indian Tariff Board of 1949.

### ANNUAL CONVENTION, 1949

Eighteenth Annual Convention of the Sugar Technologists' Association of India was held at Kanpur on November 6, 1949 with Shri Des Raj Narang in the chair. The convention was inaugurated by Hon'ble Shri K. D. Malaviya, Minister for Industries and Development, U. P.

In the course of his Presidential address, Mr. Narang said that the basic weakness of the industry lies in the extraordinarily high cost of sugarcane and its utterly inadequate supply. He said that unless this shortcoming was quickly remedied, the condition of the industry must remain critical, especially in U. P. and Bihar. He cited facts and figures to show that manufacturing efficiency has improved during the period 1934 to 1940, comparing very favourably with that of Java, Cuba and Natal. On the other hand there has been little or no improvement in sugarcane cultivation during the 17 years of protection to the industry. Both in yield and quality Indian sugarcane continues to be extremely poor.

Mr. Narang stressed the inadequacy of the cane development work of the U. P. Cane Development Department. He hoped that the Government will be good enough to spend a major share of the cess on development of cane and the industry. He said that it was really very fortunate that a fullfledged inquiry into the sugar industry has been instituted by the Tariff Board. Turning to the Technologists, Mr. Narang saw a promising future for them. He invited the attention towards the Association's effort in training chemists, unemployed during off season. He regretted that due to lack of sufficient candidates, the scheme has not borne fruit. Mr. Narang hoped that all the year round employment will be sought in Power Alcohol industry which is yet to develop fully. He stressed the need for utilising the waste molasses for power Alcohol in maximum possible quantity.

Mr. Narang congratulated Walchandnagar Industries for making paper from cane-trash and wax from press-mud. He regretted that no suitable paper was contributed for Bombay Koushika Prize. Mr. Narang informed about the practical success with the Association's scheme of uniform chemical control which has been joined by 41 mills. He wanted to know the progress of Fuel Economy scheme run by Indian Institute of Sugar Technology. He was glad to say that the number of papers this year was much more. He welcomed the move for affiliation to the Associations made by the Deccan Sugar Technologists' Association.

In the end he regretted to say that it could not be made possible to invite the International Society of Sugarcane Technologists to hold their next conference in India.

## CHAPTER XXII

### THE INDIAN CENTRAL SUGARCANE COMMITTEE

It is widely recognised that the Sugar Industry has now become one of the largest industries in India and second in importance only to Cotton Textiles. It gives employment to well over 100 thousand workers, 3 thousand graduates and technicians and more than 20 million cultivators, including manufacturers of gur, khandsari and factory sugar.

Before Nov. 1944 the responsibility for guiding sugarcane research in India and advising the Central and Provincial Governments on matters relating to the improvement and development of the industry connected with sugarcane and its products had rested mainly with the Indian Council of Agricultural Research, which was assisted for this purpose by its Sugar Committee. Taking into account the expansion of its own work and envisaging considerable further development in the near future, the Indian Council of Agricultural Research felt that the whole work pertaining to the sugar industry could best be tackled by a central organisation on the lines of the Indian Central Cotton Committee. Govt. therefore decided to constitute the Indian Central Sugarcane Committee in Nov. 1944.

#### Scope of Work

The Indian Central Sugarcane Committee is expected to undertake the improvement and development of the growing, marketing and manufacture of sugarcane and its products and to initiate agricultural, technological and economic research on sugarcane production and distribution and testing of improved varieties of cane, gur, sugar and their bye-products, the improvement of crop forecasts and statistics as well as the adoption of improved cultural and manurial practices. In due course it also hopes to deal with the important problems of banking and transport facilities connected with cane and sugar. In order to deal with problems of sugar technology, sugar chemistry and sugar engineering and to impart training in these subjects, the Committee maintains the Indian Institute of Sugar Technology, at Kanpur. Taken from "Achievements of the Indian Central Sugarcane Committee" and its future needs by Sardar Datar Singh.

#### Constitution.

In order to provide a wide representation of all interests connected with sugarcane and its products, the Indian Central Sugarcane Committee is constituted as follows:—

	Number.
(i) President (Vice-Chairman of Indian Council of Agricultural Research).....Ex-officio.	1
(ii) Non-official representing various interests	
(a) Representatives of Agricultural interests.	9
(b)       "               "       Gur and Khandsari interests	4 (To be increased to 8)
(c)       "               "       Consumer's interest.	5
(d)       "               "       Indian Sugar Mills Association	9
(e)       "               "       Sugar Factory Owners	1
(f)       "               "       Sugar Technologists Association	1
(g)       "               "       Sugar Trade.	3
(h) Dr. T. S. Venkatraman (in his personal capacity)	1
(iii) Officials including experts	19
Total	53

A Vice-president is elected every year from one of the members of the Committee. The tenure of appointment of the non-official members is for three years, but one third of these members retire by lot every year and are eligible for re-election.

## FINANCIAL POSITION

### Income

With the decision on the constitution of the Indian Central Sugarcane Committee the Central Govt decided to place at the disposal of the Committee a grant of one anna per cwt. of the white sugar produced in India, out of the Central Sugar Excise Fund for subsidising research. On the representation of the Committee and the recommendation of the Tariff Board, the Government of India in 1947-48 has increased the grant from one anna to four annas per cwt. of sugar produced in India; thus about Rs. 47.85 lakhs were made available to the committee as against 11.75 to 12.5 lakhs originally expected for the development activities. The Govt. of India however reverted to the old rate of one anna per cwt. during 1948-49. A sum of Rs. 50 lakhs has been earmarked for the establishment of the new Indian Institute of Sugar Technology by the Govt. of India from the Temporary Sugar Excise Fund.

### Expenditure

The increasing activities and the magnitude of the commitments of the committee like the establishment of the new Institute, the transfer of control of the Sugarcane Breeding Station at Coimbatore and bringing in its domain all aspects of sugarcane work-breeding, agronomy, chemistry, physiology, study and control of diseases and pests and all important problems connected with Sugar Technology including production of sugar, manufacture of gur by improved methods and investigations on the utilizations of waste products—might be visualized from the following details:—

Schemes.	Expenditure incurred in			Budget Estimate for
	1945—46	1946—47	1947—48	1948—49
	Rs.	Rs.	Rs.	Rs.
A. Grants for Research on				
1. Agricultural Schemes	2,11,628	2,16,376	3,20,332	5,47,336
2. Scheme for Sugarcane diseases	5,824	7,537	5,367	15,500
3. Biological and Insect Pests Schemes	68,193	82,681	60,569	92,815
4. Technological Schemes	42,185	40,966	72,106	1,21,266
B. Grants for the maintenance of the Indian Institute of Sugar Technology.	4,06,055	4,14,806	5,04,092	6,52,510
C. Grants for Subsidizing				
1. Current Development Schemes already running in the Provinces	2,75,987	1,60,854	.. .. .	.. .. .
2. 5 year Development Schemes.	.. .. .	68,977	.. .. .	10,30,994

## RESEARCH & DEVELOPMENT SCHEMES UNDER I.C.S.C.

### Research

A very important and fundamental role has been played in the development of the sugarcane industry by the substitution of the indigenous low yielding and poor sugar producing varieties of canes by improved strains, bred mostly at the sugarcane breeding station at Coimbatore. The Committee is already subsidizing the Coimbatore station for undertaking intensive breeding and cytogenetical work as well as, for physiological and chemical investigations. The following table shows the grants received from I.C.A.R. and I.C.S.C. for Sugarcane Breeding Station, Coimbatore upto 31-3-1948.

**D. 19 Scheme for Research on Sugarcane Physiology,**

Began on

Expenditure:—

(1)	I. C. A. R.	upto	31	3	45
(2)	I. C. S. C.	from	1	4	45

Total

1st April, 1942.

Rs.	As.	P.
16,863	0	3
38,494	7	0

Rs. 55,357 7 3

**D. 24 Scheme for Additional Staff Coimbatore,**

Began on

Expenditure:—

I. C. S. C.

1st April, 1946.

24,721 7 0

**D. 21 Scheme for Spontaneum Expedition,**

Began

Expenditure:—

I. C. S. C.

1st April, 1946.

11,244 13 6

**D. 5 Scheme for Research on Genetics of Sugarcane,**

Began

Terminated on

Expenditure:—

I. C. A. R.

1st April, 1934  
31st March, 1944

52,883 13 4

**D. 2 Sugarcane Sub-Station, Karnal,**

Began on

Expenditure:—

I. C. A. R.	upto	31	3	45
I. C. S. C.	from	1	4	1945

1st April, 1931.

1,63,143 0 0  
45,976 0 0

Rs. 2,09,119 0 0

A scheme for collection of wild *saccharums* for introducing hardness and disease resistance in sugarcane hybrids has also been sanctioned. Very promising hybrids for sugar production as well as for fodder purposes have been raised at Coimbatore by making crosses between sugarcane and *jawar*, sugarcane and bamboo and sugarcane and other grasses.

The important varieties of sugarcane which are doing well in different parts of India at the present moment are :-

**I. United Provinces**

- (a) Western U. P. Co 312, 313, 421.
- (b) Central U. P. Co 290, 312, 313, 421 and 529.
- (c) Eastern U. P. Co 313, 365, 370, 393, 395, 421, and 453.

**II. Bihar.**

- (a) North Bihar Co 313, 395, 453, B. o. 10 and 11.
- (b) South Bihar Co 313, 453, 513, Co k. 32, B. o. 10 and 11.

**III. Orissa. Co 419 and 421.****IV. West Bengal Co 313, 331, 421 and 527.****V. Assam. Co 419.****VI. Madras. Co 281, 349, 419, 421, 449, 467. and 527.****VII. Bombay. Co 290, 413, 419, 421 and 475.****VIII. East Punjab Co 312.**

From the seedlings and sugarcane fluff sent out to various experimental stations in Northern India certain promising new Co varieties have been evolved at Shahjahanpur (U. P.) and Karnal, Lyallpur (Punjab). These are denominated as Cos, Cok and Col. respectively, showing the Coimbatore varieties produced as a result of trials conducted at Shahjahanpur, Karnal and Lyallpur. Similarly some new varieties, termed the B.o. canes have been bred at Pusa (Bihar). By a novel method of exposing breeding material to X-rays, the Mysore Govt. have also produced certain promising Mys-ray varieties of cane.

For testing out the Coimbatore canes under different sorts of soils and climatic conditions, a chain of Research stations, started originally by the Indian Council of

Agricultural Research are being continued and added to by the Indian Central Sugarcane Committee in all the main sugarcane growing tracts of India. Valuable work is in progress at the main Sugarcane Research Station at Shahjahanpur and its Sub-stations at Muzaffarnagar, Gorakhpur and Kalai. Varietal, manurial, chemical physiological, mycological and entomological problems in respect of sugarcane are being investigated at these stations and the more useful results of these experiments are recommended for adoption by the sugarcane, gur and sugar producers whose numbers are the largest in this Province. The main Sugarcane Research Station at Pusa, in Bihar, has also done equally well and in some respects more important work on all the abovementioned aspects has been conducted. The special feature of this station is the live contact it has all along maintained with the sugar factories in Bihar. This station has conducted soil, and disease and pests-surveys and has carried out a certain amount of cane breeding work also. With the help of funds allocated by the Indian Central Sugarcane Committee, a sub-station has also been started recently at Patna for sugarcane work under South Bihar conditions. In the undivided Punjab a sugarcane research station was started at Risalewale (Lyallpur) with a Sub-station at Jullundur, but with the partition of this province, the main station is now located at Jullundur in East Punjab and a number of other sub-stations are working under it. Work on seed-rates, time of planting and the interaction of these two factors as also of the manurial, irrigational and entomological aspects are being studied. Frost-resistance of cane varieties is also being tested before releasing the canes for general distribution. In unpartitioned Bengal work on sugarcane was in progress on a limited scale, but a comprehensive scheme for sugarcane development has recently been sanctioned for the new province of West Bengal by the Indian Central Sugarcane Committee. Valuable work on sugarcane soils and sugarcane physiology has been carried out at the Padegaon Sugarcane Research Station of the Bombay Presidency. Sugarcane research has been an important feature of the Madras Presidency for a long time. Useful work on varietal, manurial and cultural aspects of sugarcane has been in progress at the Anakapalle station and its sub-station at Gudiyattam in the Madras Presidency.

Pests and diseases continue to be major handicaps with which the cane grower has to cope. Damage to the extent of ten lakhs of rupees is caused annually to the sugarcane crop by these maladies. Grants have been sanctioned for the study of these pests and diseases and for finding out measures of their control. Practical schedules have been worked out and distributed in the light of results obtained from research for protection against Red-Rot, Smut and Mosaic of sugarcane and for controlling borers and other insect pests by cultural, chemical and biological means.

## DEVELOPMENT

For an important crop like sugarcane, it is essential that research and development should go hand in hand. With this view point a five year plan of sugarcane development involving an expenditure of about Rs. 75 lakhs has been undertaken by the Indian Central Sugarcane Committee. These schemes have been started in most of the provinces with effect from 1948-49. With the exception of the newly created provinces of East Punjab and West Bengal all the other Provincial Governments have agreed to undertake an expenditure of an equal or higher amount than has been allocated by the Committee. Special stress will be given in these schemes to the provision of adequate irrigation facilities, manures and fertilizers of the right type, qualified and properly trained technical personnel, efficient watch and ward service for protection of the crop from pests and diseases and for soil extension service for giving advice to growers for the maximum utilization of their land and regarding the nature of the manures and fertilizers needed by it. Establishments of seed nurseries to provide large quantities of disease-free seed suitable for different regions will also be undertaken to distribute tested planting material to the growers.

## STOP PRESS

### U.P. GOVT. RECOGNISE CHINI MILL MAZDOOR FEDERATION

The U.P. Government have accepted the United U. P. and Bihar Chini Mill Mazdoor Federation as the recognised organisation of workers in the sugar industry in place of the All-India National Sugar Mills Workers Federation, as a result of the census held recently in the Sugar Industry of U.P. The Federation has been asked to submit the names of their representatives for nomination to various Works Committees in the sugar factories in the State and also a panel of names for nomination to the Conciliation Boards and Industrial Court, pertaining to sugar industry, by April 30, 1950.

Government propose to reconstitute the Works Committees in Sugar factories for a year with effect from May 1, 1950. So long as the Federation does not submit the list of their representatives as required above, the present arrangement will have to continue. Government, however, hope that it would be possible for the Federation to submit their list of names before April 30, 1950.

### SUGAR WORKERS TO GET BONUS FOR 1948-49.

#### Justice Bindbasni Prasad's award

Bonus of 20 per cent of the profits earned by the sugar factories of the state in 1948-49 has been recommended for their employees for that year by Mr. Justice Bindbasni Prasad of the Allahabad High Court who was appointed by the U.P. Government to inquire into the dispute between sugar workers and the industry in January last.

In his report which has been published in the U.P. Government Gazette this week, Mr. Justice Prasad says that bonus should be paid only from profits and that the quantity of cane crushed, quantity of sugar produced, percentage recovery of sugar, the actual crushing period and the crushing capacity of the factory should also be taken into account. He is further of the opinion that the distribution of bonus should be menwise and not region-wise or on a flat rate and each worker should get in proportion to his earnings during the year 1948.

Examining the question of profits earned by the factories Mr. Justice Prasad found the balance-sheets submitted by them unsatisfactory. He remarks that there was no uniformity in the preparation of the balance-sheets which caused confusion in drawing up comparable statistics. He, therefore, recommends that the balance-sheets should be submitted on prescribed forms and should show some items in more details. But in the absence of any other data, he says that he has to depend on those balance-sheets.

He is, however, not prepared to rely on the balance-sheets showing loss and says it would not be proper at least in the case of factories showing loss to base bonus on the balance-sheets. In the absence of satisfactory explanations their balance-sheets should be looked upon with suspicion. Further he recommends scrutiny of such balance-sheets.

Mr. Justice Prasad's court of inquiry was also asked to report on the questions of leave for sugar workers and the retaining allowances to be paid to them for the off-season. He recommends that seasonal employees are also governed by the provisions of the Factory Act as regards leave as the workers of any other industry or permanent employees elsewhere.

As regards retaining allowances he says that there is no valid reason for the award of retainer to the unskilled workers in sugar factories. But he adds, skilled seasonal employees and the clerical staff should be allowed retaining allowance for the off-season.

**ALL-INDIA FINAL ESTIMATE OF SUGARCANE—1949-50.  
SUMMARY**

	1949-50 (Final Estimate)	1948-49 Partially Revised Estimate)	Percentage de- crease (-) of Col. 1 over Col. 2
	(1)	(2)	(3)
Area (thousand acres)	3,641	3,791	(-) 4.0
Yield (thousand tons of raw sugar-gur)	4,904	4,993	(-) 1.8

N. B. See footnotes to statement II.

**Remarks :—**

PEPS Union, Rajasthan, Vindhya Pradesh, Ajmer, Himachal Pradesh, Tripura, Banaras (U.P.) and merged territories of Orissa have been included in this Estimate for the first time, this year. These areas account for about 150 thousand acres under this crop and nearly 165 thousand tons of out-turn.

During the current year there has been a significant increase of over two lakh tons in yield in the Uttar Pradesh State due to generally favourable weather conditions. This has, however, been more than off-set by a decline in out-turn in Bombay and Hyderabad States owing partly to unfavourable weather conditions and partly to decrease in acreage. Fall in acreage in these two States and also in other parts of the country has been attributed to low prices of gur at the sowing time.



## STATEMENT II

ALL-INDIA FINAL ESTIMATE OF SUGARCANE—1949-50  
DETAILED STATEMENT

S T A T E	Area (thousand acres)		Yield (thousand tons of raw sugar-gur)	
	1949-50	1948-49	1949-50	1948-49
Assam	59	61	68	67
Bihar (excluding merged territories)†	379	388	275	256
Bombay	151	180*	420	579
Madhya Pradesh	54	59	69	72
Madras	191	176	536	533
Orissa	59	62	108	120
Punjab	279	306	317	346
Uttar Pradesh	2,130	2,116	2,661	2,454
West Bengal @	57	66	89	106
Hyderabad	57	56	106	176
Madya Bharat	55	77	42	58
Mysore	45	49	84	92
PEPS Union	55	63	61	58
Rajasthan	30	35	29	31
Saurashtra	10	14	16	16
Vindhya Pradesh	6	8	3	4
Ajmer	1	1	1	1
Bhopal	10	12	8	11
Delhi	4	8	2	5
Himachal Pradesh	3	3	1	1
Kutch	1	(a)	2	1
Tripura	5	5	6	6
TOTAL	3,641	3,791*	4,904	4,993*

†Current and last year's area and yield figures of Bihar included in this Estimate are based on Complete Enumeration Survey and are not comparable with figures of previous years which were based on Chowkidar's Reports.

\*Subject to Revision. (a) Less than 500 acres. @ Excluding-Cooch Behar\*

## JUDICIAL INQUIRY INTO SUGAR CRISIS

## Government Resolution

The Government of India in their Resolution No. 33 (1)-T. B./50, dated the 6th March, 1950, issued by the Ministry of Commerce on the report of the Tariff Board on the Sugar Industry had stated *inter-alia* that the question whether any further enquiry into the sugar crisis of July-August 1949 was necessary and if so, what its scope should be, was engaging their attention and a decision thereon would be taken shortly. Government have now completed their examination of the Tariff Board Report and having regard to the assurance given to the Parliament that an enquiry will be made about such aspects of the sugar crisis as were not fully covered by the Tariff Board.

they have decided that the enquiry should be held into the following matters of which items 1 and 2 were recommended by the Tariff Board themselves for further investigation.

(1) The suggestion that wagon supply to the sugar factories for movement of sugar during the season 1948-49 was excessive.

(2) The allegation that sugar intended for consumption in India was in fact moved into Pakistan on an appreciable scale during 1949.

(3) The allegation that several factories despatched sugar in breach of the Freezing Order of the U. P. Government on 26th August, 1949 and of the Central Government on 2-9-1949.

(4) The allegation that many factories or their sales agents charged heavy premia over the fixed price during July-August 1949.

(5) The circumstances under which the proposal for export of 50,000 tons of sugar was made in May-June 1949 by spokesmen of the Industry and the circumstances under which the proposal was dropped.

(6) The allegation that substantial stocks of sugar were moved out by the factories to their own godowns before the crisis, that large stocks were moved by the factories and trade from the Bihar factories during the interval between the U. P. and the Central Government's Freezing Orders and that in July-August 1949, considerable movement of sugar by factories and trade took place in various directions to facilitate the sale at exorbitant prices of sugar purchased at high premia.

(7) Any other matter which may be germane to or incidental to any one or more of the aforesaid matters or to any finding of the Tariff Board on the sugar crisis.

2. The Government of India have appointed Shri Ganga Nath, retired judge of the Allahabad High Court to conduct the above enquiry. He shall have access to such official records as are necessary for the purpose of the enquiry and he is also authorised to undertake such touring as may be necessary.

The Government of India trust that the Sugar Industry, the trade and the general public will co-operate to facilitate the early completion of the enquiry by Shri Ganga Nath.

K. L. PANJABI, Secy.

## **SUGAR FACTORY FOR MADHYA PRADESH—SANCTION ACCORDED**

Under the Government of India Sugar Industry Expansion Scheme a sugar factory has been sanctioned for Madhya Pradesh and permission has been granted to Messrs. Mohan Sugar Mills Ltd., to establish the factory at Dhanwada in the Hoshangabad district.

In return for this permission and grant of certain other concessions and facilities such as irrigation and water supply at reduced rates, the company has agreed to provide technical training to five Government nominees. The company has also agreed to allot and give to the State Government, fully paid-up ordinary shares of the face value of Rs. two lakhs and to have two nominees of Government as ex-officio members on the Board of Directors.

## **UNIFORM WAGES IN SUGAR INDUSTRY**

### **U. P. INQUIRY**

Mr. M. C. Pant, Deputy Labour Commissioner and Chairman of the Standardization Committee (Sugar), has issued a questionnaire to the managers of the sugar factories in U. P.

The Standardization Committee (Sugar) will report to the Government on the wages and fixation of grades in the State's sugar industry.

The Committee consists of Mr. M. C. Pant, Chairman, and Sahu Jagdish Prasad, Managing Director of the Pilibhit Sugar Factory and Mr. K. N. Pandey, General Secretary of the Indian National Mill Workers' Federation, members, Mr. D. R. Parashar, Associate Professor in the Indian Institute of Sugar Technology, Kanpur will be the Committee's technical expert.

The Committee is required to submit its report to the Government by September 30.

The questionnaire, among other things, calls for information on annual production, employment, working days and wages for the years 1930-39, 1940-49 and 1949-50 capacity of the plant when installed and the nature of power used at present, wages movement from 1939 onwards, job content, amount spent on welfare work and common amenities, and effect on employment and on the wage bill of the shortening of working hours and increase in permanent employment.

Replies are required to be given by July 15.

### **EXPORT OF SUGAR PROHIBITED**

The Government of India have prohibited with immediate effect the export of sugar to places outside India. The prohibition covers white and brown sugar and also sugar candy.

The Government have also regulated the export of Gur (cane and palmyra jaggery) with effect from today. Under these regulations, the export of gur will be permitted only to Ceylon and other Far Eastern destinations, and will be prohibited to all other destinations, including Pakistan.

Exports up to a limited quantity of 1,250 tons per quarter will be permitted for Ceylon and other Far Eastern destinations during the year ending June, 1951. Exports to French India will be limited to the level of exports made during 1948.

### **BONUS FOR 1948-49**

#### **Government Lay Down Rates**

The U. P. Government have ordered that every sugar factory which has shown net profit in its balance sheet on the year's working shall pay bonus for 1948-49 at the rate of 20 per cent of such net profit. The two factories in Rampur will, however, pay bonus at the rate of 25 per cent. In the cases where there is any difference between the net profits on the year's working and the profit as appearing in the balance sheet after consolidation with past year's profit or loss, the lesser of the two figures shall be the criterion for the distribution of bonus. No bonus shall be payable by such factories where profits on the year's working have been wiped out entirely on account of past year's loss.

If any factory has suffered a loss on the year's working, but by drawing upon funds like the dividend equalization fund or by adding profit transaction unconnected with the production of sugar it shows profit in its balance sheet and distributes dividends it shall pay bonus to the workmen at the rate suggested by the Nimbkar Committee.

The factories which crush over 13 lakh maunds of cane, but show loss in their balance-sheet, shall pay bonus at the rates contained in the offer made by the Syndicate and mentioned in the Nimbkar Committee report.

Factories crushing up to 13 lakh maunds of cane shall pay bonus only if they show any profit on the year's working, in their balance sheet at the rate of 20 per cent.

The Government have further announced that five sugar mills, H. R. Sugar Mill, Bareilly, Shiva Prasad Banarsidas Sugar Mill, Bijnor ; Dhampur Sugar Mill, Dhampur ; R. B. Lachmandas Mohanlal and Sons, Sugar Mill, Jarwal Road, Cawnpore ; and Kamlatpat Motilal Sugar Mill, Masodha shall have the benefit of reduction in the rates of bonus for 1947-48 as allowed by the Government notification in February, 1950.

## APPENDIX-A

## LAWS AND LEGISLATION

## Season 1948-49

**(1) Minimum Cane Price**

The Government of U. P. announced the minimum cane price for the season 1948-49 at Rs. 1/10/0; per maund for cane purchased by factories in the province : Of this, Rs. 1-8-0 would have to be paid in cash and -/2/- would be saved in reserve to be credited with approved co-operative or other recognised organisation on behalf of and for the benefit of the growers or their co-operative societies. The amount thus saved would be paid later on to the grower. Further a cane cess at the rate of -/3/- per md. of cane was also imposed by the Government of U. P. The Bihar Govt. announced the minimum cane price at Rs. 1-13-0 per md. plus the provincial cane cess at -/2/- per md.

**(2) Rules for Deferred Cane Price**

The Govt. of U. P. issued a notification dated the 19th January 1949, regarding submission of returns by sugar factories in connection with the amount of as.2 per md. of cane to be deducted by them from the minimum cane price for deferred payment to the growers. The sugar factories were directed as per the above notification to deposit in the nearest Government treasury within a week of the close of each fortnight the amounts deducted during a fortnight from the price of cane. It further provided that as soon as the grower or a member of the Society had completed his supplies of cane for the season, the factory should prepare a statement on prescribed form showing the names of the growers, quantity of cane supplied by them individually, the rate of deduction and the total amount deducted for investment for each grower. The above statement has required to be sent to the U. P. Provincial Co-operative Bank Ltd, Lucknow, the Cane Development Officer of the Range and also to the Cane Grower's Co-operative. Societies supplying cane to the sugar mills.

**(3) Bihar increase in Societies Commission**

The Govt. of Bihar in the Development and Employment Department by a notification dated 11th Dec 1948, increased the rate of commission to Co-operative Societies from 3 pies per md. to 7½ pies per md.

**(4) Bihar Amendment Re-membership of Syndicate**

By a notification dated 23rd April 1949, the Bihar Govt. amended the Bihar Sugar Factories Control Rules, 1938 as follows:-

"That the factory shall be a member of any organisation of the sugar industry, the main object of which was to regulate the sale of sugar and which was registered under the Indian Companies Act 1913 and has also been recognised by the Provincial Government under clause 11 (a) of Section 11 of the Act."

## EXCISE

**Refund of Excise Duty on Exported Sugar**

In May 1949 an Inter-Dominion Conference was held at which an agreement was arrived at between the Governments of India and Pakistan as regards the grant of rebate of Central Excise duty. One of the decisions at the above Conference was to the effect that from 1st June, 1949 each dominion would grant full rebate of excise on exportable commodities exported to the other dominion if such rebates were given on exports of the same commodities to any other country. In view of the above decision India revised their original decision and started granting full rebate.

### (5) Payment of Excise Duty on Sugar lost by fire

By a Notification No. 18—Central Excise dated 27th November, 1948, issued by the Ministry of Finance, (Revenue Division) amending Rule 49 of the Central Excise Rules, the damaged sugar when removed out of the godown for sale had to pay the full excise duty on its weight.

## LABOUR

### (6) Standing Orders—U. P.

The question of framing standing orders by sugar factories in the province was referred to by the U. P. Govt. to the Sugar Industry Conciliation Board. The U. P. Government issued a notification on the 30th September 1948, enforcing the agreement arrived at between the representatives of sugar factories in U. P. and their workers. By another notifications dated 29th September, 1948, the U. P. Govt. exempted all the vacuum pan sugar factories in the province from the provisions of the Industrial Employment (Standing Orders) Act 1946.

### Definitions of a Worker

The Ministry of Labour, Govt. of India as per their letter dated 12th May 1949, stated that in order a person employed whether in a clerical capacity or otherwise in a factory was treated as a worker under the Factories Act, 1948, some connection must be established between that person and the manufacturing process as defined in the Act. It would depend on the nature of work on which he was employed.

### Sales Tax in U. P.

With effect from 1st April 1948, the Govt. of U.P. levied a sales tax at the rate of 3 pies per rupee on all sugar consumed within the province, while exports of sugar outside the province were subject to the payment of 50 per cent of the tax viz 1½ pies per rupee. In case of exports out of U. P. the full rate of tax at 3 pies per rupee was to be deposited and then to apply to the Government for refund of the 50 per cent of the tax by submitting the necessary proof of exports.

## TRANSPORT

### Increase in the Freight rate

The various railway administrations increased the freight rate on sugar with effect from 1st October, 1948.

E. I. R.	Revised rate	Old rate
	Per mile	Per md.
For the First 300 miles	·58 pie	·38
For the next 300 „	·54 „	·25
For 600 miles and beyond	·49 „	·20

It was subject to a maximum permissible rate per md. of Rs. 4/-. The above rates were telescopic rates and the basic charge declined with the increase in distance and these would apply on a continuous mileage basis.

### Booking of Sugar at railway risk

The revised freight rate for sugar enforced by the various Railway Administrations with effect from 1st October, 1948 was based on railway risk.

### Increase in the freight rate on cane

By a circular letter dated the 27th September, 1948, the Chief Commercial Manager, E. I. Railway directed that with effect from 1st October, 1948, sugarcane would be charged over the above railway at the lump sum rate per four-wheeled

wagon according to distance and will apply only to sugarcane consigned to various sugar factory stations. The increase effected was from 200 to 300 per cent over the rates prior to 1st October 1948.

Each wagon carried, on an average 480 mds. of sugarcane and the revised rate was Rs. 27-12-0 for distance upto 49 miles. Thus the increase was only 11.1 pies per md. of cane or 0-9-3 per md. of sugar.

#### O. T. Rly.

The minimum charge of Rs. 1-12-0 per ton of carrying capacity of the wagon as against the freight rate of 30 pies per md. per mile was enforced with effect from 1. 10. 48. The minimum charges are to be as follows upto a distance of 52 miles.

Rs.	a.	p.	Carrying capacity of wagons
11	0	0	6 Tons
14	0	0	8 "
20	0	0	11 "
26	0	0	14½ "
32	0	0	18 "
48	0	0	27 "

#### G. I. P. Rly.

The increased rate was Rs. 32/- per wagon as against Rs. 11-14-0 during the season 1947-48.

#### Restriction on Import of Sugar Machinery

The Joint Secretary, Ministry of Agriculture, Govt. of India stated that the Government had decided that in the interest of the indigenous industry, import from abroad of sugar mill machinery and its part which were or could be manufactured in India and were reported to be giving satisfactory performance in the various sugar factories in the country, should not be allowed. He also enclosed a list of such sugar mill machinery and parts.

#### Bombay Molasses Act

The sugar mills in the province of Bombay were required to take out a license for the possession and sale of molasses and to pay in advance, if and when required by the Excise Commissioner such cost of the excise staff as he might consider necessary to appoint for the proper supervision of all the arrangements for the storage. They were also required to provide suitable office accommodation for the Excise Officer,

### NOTIFICATIONS

#### SEASON 1948-49.

#### CANE PRICE IN THE U. P.

##### Notification (No. 3072—(iv)/X11c—188/S 1948)

"In Exercise of the power conferred by sub-section (1) of section 21 of the United Provinces Sugar Factories Control Act, 1938, the Governor is pleased to declare that in the case of sugarcane purchase during the 1948-49 crushing season for a factory in the United Provinces, the minimum price, exclusive of the cess levied under sub-section (2) of section 29 the Act, shall be one rupee ten annas per standard maund of 82 2/7 lbs.

#### CANE CESS IN BIHAR

##### Notification No. 10690 D dated 14th December, 1948

"It is hereby notified that the cess at the rate of twenty four pies per maund, which was levied by Notification No. 4372D, dated the 28th April by 1948 on entry of all sugarcane into the local areas comprised in the factories is still in force."

**CANE PRICE IN BIHAR****Notification No. 10689—D dated the 14th December, 1948**

"In exercise of the powers conferred by section 21 (1) of the Bihar Sugar Factories Control Act, 1937, the Governor of Bihar is pleased to fix one rupee and thirteen annas per maund as the minimum price for the purchase of cane during the crushing season 1948-49."

**CANE CESS IN U.P.****Notification (No. 3072—S (iv) / XII c—188/1948)****Season 1949-50****BIHAR CANE PRICE****Notification No. 10559 dated the 17th November, 1949**

"In exercise of the powers conferred by section 21 (1) of the Bihar Sugar Factories Control Act, 1937, the Governor of Bihar is pleased to fix one rupee ten annas and nine pies per maund as the minimum price for the purchase of cane during the crushing season 1949-50."

**CANE CESS IN U. P.****RURAL DEVELOPMENT (CANE) DEPARTMENT****Notification No. 4436—S/- 11c—160/-1949 dated 29-12-49**

"In exercise of the powers conferred by sub-section (2) of section 29 of the United Provinces Sugar Factories Control Act, 1938, the Government is pleased to declare that during 1949-50 crushing season, cess at a rate of three annas per maund shall be levied on the entry of all sugarcane into the local areas comprised in the factories, for consumption, use or sale therein."

**CANE PRICE IN MADRAS**

Under the provisions of the Madras Sugar Factories Control Act, 1949, sugarcane price for supply to factories in the 1949-50 season has been announced in a Gazette Extraordinary on November 13, 1949 as follows:

Crushing Capacity of Factory	Price per ton (Inclusive of Freight)
300 tons and below	Rs. 42/-
300—1,200	Rs. 46/12
over 1,200 tons	Rs. 47/4

The price fixed is for delivery at the factory and should be paid by the occupier of the factory on demand after delivery.

**Factory Welfare Officers**

In every factory wherein 500 or more workers are ordinarily employed, the occupier shall employ in the factory such number of Welfare Officers as may be prescribed. All seasonal factories, however short their duration of season may be, are required to comply with this order if they employ more than 500 workers.

**Permission to Dismiss or Discharge workers**

An application to the appropriate authority for permission to dismiss or discharge within 2 or 3 days from the date when the workman is adjudged guilty of the act of misconduct for which he is charged and suspended, should be made.

**Notification (No. 2938 (LL) lxviii—746 L/-48 dated July 26, 1949)**

"Except with the written permission of the presiding officers of the Provincial or the Regional Conciliation Boards concerned irrespective of the fact whether an enquiry is pending before them or an appeal is pending before the Industrial Court, no employer or his agent or manager, shall during the continuance of the inquiry or appeal discharge or dismiss any workman"

### **New Works Committee**

A Government Notification dated July 30, 1949 laid down that new Works Committees should be constituted before September 1, 1949. The new Committee will start functioning from September 1, 1949 and the old committee will continue to function in office till August 31, 1949.

### **The Workers Provident Fund Bill**

A bill has been introduced in Parliament to provide Provident Fund facilities to certain classes of workers by their employees. Provisions of the bill have been published. The rate of subscription shall be at the uniform rate of 6 per cent on total wages and the contribution shall be deducted every month from their wages. Employer shall contribute double the sum paid by the worker.

### **Sales Tax on Molasses**

A Sales Tax at the rate of 0-0-6 per rupee on the value of molasses has been imposed on molasses with effect from 1st July, 1948.

### **Sales Tax on Sugarcane**

The sale of sugarcane by the grower himself is not taxable. It will be leviable on the sales of sugarcane made by a person who is not himself the grower of cane but collects it from others and then sells it to the factories.

### **Sugar Factories Exempted from U. P. Shops and Commercial Establishment Act, 1947**

By a Notification No. 342 LL/-xvii-902 L/-48 dated 17th November, 1948, the Governor is pleased to exempt all the vacuum pan sugar factories in the U. P. from the provisions of section 6, 8, 10, 11 and 12 of the said Act subject to the following conditions :

- (1) Employees shall be allowed two days holidays in the course of each period of 14 days of employment.
- (2) The total hours of work put in by an employee during period of four weeks shall be such that his weekly average does not exceed 56 hours.
- (3) An employee working in excess of eight hours a day shall be paid in respect of such additional hours at twice the rate of his normal remuneration calculated by the hour.
- (4) Overtime work shall not exceed 220 hours in the aggregate in any year.
- (5) Where an employee is deprived of a holiday for which provision is made in section 11, he shall be allowed equal number of compensatory holiday or full pay immediately after the close of the current crushing season in the factory.

### **Licences for Employees Engaged in Weighment and payment Work**

By a letter No 123/c-NAI/44 dated December 8, 1948, Cane Commissioner, U.P. orders :—

“It will be necessary for sugar factories to take out licences for their employees engaged in weighment of cane and the payment therefor irrespective of whether cane supplies are received through co-operative unions or direct from cane growers.

### **Seasonal Employees of the Sugar Factories—Rules**

By a Notification No. 6308 (ST)/-xvii-261 (ST)/47 dated October 23, 1948, the U.P. Govt. orders :—

The employment of season workmen in all vacuum pan sugar factories in the U. P. will be governed by the following rules :—



(1) A worker who has worked or but for illness or any other unavoidable cause would have worked in a factory during the whole of the second half of the last preceding season will be employed in this season in such factory.

(2) All the seasonal workers who worked during the last season will be put on their old jobs whether they were in the 'R' shifts or in usual shifts.

In special causes if any factory finds it necessary to transfer a worker from one job to another or from one shift to another, including the 'R' shift, it may do so after a maximum of 5 per cent of the total number of employees, without in any way affecting the wages or the status of the workers concerned.

(3) No retrenchment in the staff will be allowed in any factory unless the same has been approved by the United Provinces and Bihar Sugar Mill Workers' Federation 11-39, Gwaltoli, Kanpur, in consultation with Major H. S. Brar.

(4) Vacancies caused by dismissal, resignation or death shall be filled up by old hands of that particular factory if suitable hands are available.

### **WORKS COMMITTEE**

**Govt. Notification No. 91(LL)xviii-4(LL) 49 dated Feb. 9, 1949, regarding the Constitution of Works Committees.**

By Government Notification No. 525 (LL)/-xviii-4 (LL)/-49 dated Feb. 19, 1949, certain amendments have been made in the above quoted Notification, and Rule 22 and the first proviso to Rule 24 as amended reads as follows :—

#### **Rule 22.**

Unanimous decision of the Works Committee shall, subject to the provisions of the proviso to clause 24 below, be binding on the Parties.

First Proviso to Rule 24. (Provided that nothing in the forgoing rule, or in clause 22 above will be construed as restricting the powers of Govt, the Labour Commissioner or a Regional Conciliation Officer, under the United Provinces Industrial Disputes Act, 1947 or an order made thereunder, to refer any industrial dispute to a Regional or Provincial Conciliation Board, or the powers of Govt. under the said Act to refer an industrial dispute to adjudication or conciliation by any other authority.

### **FREEZE ORDER**

**The U. P. Government Notification No. 2666-S- xiic Dated 25th August, 1949**

"In exercise of the powers conferred by section 10-A of the United Provinces Sugar Factories Control Act, 1938 (U. P. Act 1 of 1938), as amended from time to time, the Government is pleased to order :—

(1) that every owner and occupier of a sugar factory situated in the United Provinces shall sell all stocks of sugar of every variety and grade, produced by the factory during the 1948-49 crushing season, which may be stored on the close of business on August 25, 1949 in any godown or other place of storage or custody whether or not owned or rented by the factory, only to persons or organisations, nominated by the the Provincial Government in this behalf,

(2) that no owner or occupier of any sugar factory in the United Provinces shall sell or agree or offer to sell any such sugar to any person except as provided in clause (1) above,

(3) that such sugar shall be sold at a price based on Rs. 29-1-0 per maund (inclusive of additional Excise Duty) for D-24 grade in usual packing and loaded in wagons. The grade differential in the price for each grade on this basis shall be the

same that was in force according to the official Indian Sugar Syndicate price ruling between the commencement of the crushing season (as defined in section 2 (i) of the United Provinces Sugar Factories Control Act, 1938) in 1947-48 and the commencement of the crushing season in 1948-49,

(4) that in order to facilitate the enforcement of this order, every owner and occupier of a sugar factory in the United Provinces shall declare the stocks of sugar of every variety and grade held by the factory on August 26, 1949, immediately to the District Magistrate of the district in which the factory is situated,

(5) that this order shall come into force at once."

### APPENDIX B.

Capital, Block and Reserve Fund of Sugar Companies.

	Paid-up Capital (Rs.)	Net Block (Rs.)	Total Reserves (Rs.)
1. Balrampur .. ..	28,00,000	17,98,397	811,547
2. Basti .. ..	15,00,000	15,44,559	28,11,089
3. Belapur (Bombay) ..	46,99,750	20,91,050	17,82,098
4. Belsund .. ..	19,49,050	11,99,961	Nil.
5. Bharat .. ..	20,00,000	3,96,766	5,97,394
6. Buland .. ..	23,99,340	17,96,393	21,58,565
7. Carew .. ..	40,00,000	47,51,503	43,15,289
8. Cawnpore (Marhowrah and Gouri) .. ..	25,00,000	15,64,287	44,04,423
9. Champaran .. ..	18,00,000	10,30,815	28,88,106
10. Deoria .. ..	5,99,452	14,59,360	682,943
11. Darbhanga .. ..	26,00,000	13,26,013	3,054,707
12. Ganesh .. ..	12,00,000	8,57,376	5,12,160
13. Ganga .. ..	8,52,841	8,96,669	5,10,952
14. Gaya .. ..	67,07,150	46,43,806	4,89,334
15. Gwalior .. ..	25,00,000	26,12,799	82,197
16. Jaswant .. ..	30,00,000	26,54,471	15,000
17. Mohini .. ..	12,25,000	14,88,584	Nil.
18. Mysore .. ..	21,79,280	25,64,995	85,16,890
19. Nawabganj .. ..	12,00,000	22,53,541	10,64,536
20. New India .. ..	18,37,700	9,39,767	1,63,035
21. New Savan .. ..	11,00,000	6,45,722	409,122
22. Punjab .. ..	12,00,000	8,11,723	15,21,658
23. Purtabpore .. ..	15,00,000	12,08,748	8,71,387
24. Ramnaggar .. ..	20,41,270	21,87,392	5,93,423
25. Ratna .. ..	12,13,660	7,43,912	6,09,409
26. Raza .. ..	19,99,570	16,23,508	24,28,672
27. Ryam .. ..	8,00,000	5,21,174	13,35,355
28. Samastipur .. ..	11,99,000	6,73,302	6,14,834
29. Shree Anand .. ..	20,00,000	16,72,596	Nil.
30. Shree Hanuman .. ..	15,00,000	20,90,638	3,36,093
31. Shri Yuvraj .. ..	15,15,000	33,58,249	15,621
32. Shri Krishna .. ..	38,00,000	41,57,915	10,10,842
33. Shri Radha Krishna ..	19,02,015	22,77,288	114,946
34. Shri Sitaran .. ..	7,95,462	8,12,088	10,71,057
35. Sitalpore .. ..	9,99,950	8,57,863	165,843
36. Sir Shadilal .. ..	15,00,000	11,63,045	1,50,000
37. South Bihar .. ..	13,25,000	16,88,984	51,356
38. Scoriahi .. ..	16,00,000	5,95,866	996,865
39. Upper Doab .. ..	13,75,000	18,74,451	12,96,678
40. Upper Ganges .. ..	35,08,000	7,97,970	7,99,695
41. Upper India .. ..	14,00,000	12,89,727	19,32,051

## Net Profit and Dividend of Sugar Companies.

Serial No.	Name of Company	NET PROFIT					Dividend % p. a.				
		1948	1947	1946	1945	1944	1948	1947	1946	1945	
1	Balrampur	1,30,114	--5,351	66,093	--4,685	1,03,105	5	--	2½	--	
2	Basti	Na	1,81,433	90,893	3,96,312	6,36,705	--	12	15	20	
3	Belapur	31,64,453	10,93,315	Na	6,94,198	12,36,469	18	24	16	18	
4	Belsund	Na	--405,053	--86,420	--29,794	10,674	--	--	--	--	
5	Bharat	621,187	103,499	--	30,13,292	25,86,941	7½	7½	--	10	
6	Buland	32,52,081	10,55,221	--26,173	7,06,689	10,23,907	20	10	--	20	
7	Carew	6,76,105	1,85,661	6,90,709	8,47,090	3,09,228	6½	--	12½	15	
8	Cawnpore	8,12,473	2,98,605	3,47,880	4,19,615	3,10,557	15	15	15	15	
9	Champur	2,38,742	1,72,018	270,139	4,27,439	3,58,116	15	12½	15	20	
10	Deoria	2,60,317	--5,972	--52,413	--87,840	1,20,976	6	--	--	--	
11	Darbhanga	12,45,765	29,166	3,01,116	70,974	2,37,387	6	--	5	--	
12	Ganesh	Na	Na	1,61,112	1,37,515	2,11,648	--	--	7½	10	
13	Ganga	--	--	72,539	--	42,444	--	--	--	6	
14	Gaya	Na	30,815	1,28,899	59,650	1,99,920	--	--	--	--	
15	Gwalior	Na	Na	53,133	16,587	Na	--	--	--	--	
16	Jaswant	Na	Na	--147,373	1,755	--88,952	--	--	--	--	
17	Mohini	Na	--147,241	5,83,036	7,35,934	7,34,65	20	20	10	20	
18	Mysore	8,02,570	5,94,433	2,00,047	3,75,383	5,93,982	15	15	15	15	
19	Nawabganj	Na	6,70,228	1,10,993	88,961	45,784	--	5	5	5	
20	New India	Na	74,891	--	1,07,612	61,824	5	5	--	7½	
21	New Savan	95,438	62,581	--26,043	--	3,85,136	--	--	--	--	
22	Punjab	Na	--	91,069	--	1,22,165	6	--	7½	7½	
23	Puriabpur	2,05,501	--25,025	2,69,043	1,23,405	2,13,125	--	10	10	10	
24	Ramnaggar	Na	2,32,743	4,53,316	4,53,316	43,826	6	6	12	12	
25	Rana	3,23,336	1,18,073	63,645	1,13,153	94,7426	25	10	10	25	
26	Raza	24,16,958	8,84,170	--36,287	8,31,140	66,604	20	15	10	10	
27	Rvam	2,88,246	90,123	63,346	56,834	65,749	10	5	3½	3½	
28	Samastipur	2,03,517	90,237	43,310	54,985	6,888	--	--	--	--	
29	Shree Anand	Na	Na	27,695	26,739	5,22,250	--	--	15	--	
30	Shree Hanuman	Na	Na	3,92,921	Na	--2,290	5	--	--	6½	
31	Shri Yuvraj	--	1,05,906	--	3,36,174	2,25,706	--	--	--	10	
32	Shri Krishna	4,69,419	--	--1,41,443	--	--	--	--	--	6½	
33	Shri Radhakrishna	Na	Na	23,774	1,50,285	1,59,948	6½	5	7½	10	
34	Shri Sitaram	1,05,057	68,737	23,549	1,05,078	1,05,103	--	--	2½	6½	
35	Sitalpore	Na	6,765	1,38,478	Na	2,11,736	--	4	--	--	
36	Sir Shadilal	Na	1,05,235	--2,50,767	--2,76,611	--2,43,266	--	--	--	--	
37	South Bihar	Na	1,268	75,245	1,70,981	1,85,463	--	5	5	7½	
38	Seorahi	Na	65,972	--1,58,246	1,59,504	Na	--	6	--	4	
39	Upper Doab	Na	--49,826	2,20,040	Na	2,96,911	--	20	15	--	
40	Upper Ganges	Na	2,41,551	3,03,400	4,87,000	2,19,300	15	15	15	17	
41	Upper India	6,39,680	5,66,300	--	--	--	--	--	--	--	

## APPENDIX-C

## LIST OF NEW SUGAR FACTORIES UNDER CONSTRUCTION

	Capacity (Tons)
(1) All-India Sugar Mills Ltd, Habra, E. I. R. Mg. Agents, M/s. Chakrabarty Roy & Co. Ltd., 1, British Indian Street, Calcutta	600
(2) M/s. Godavari Sugar & Refiners Ltd, Tanuku, (M. S. M. R. Dist. W. Godavari M/A. M/s. Aidco Ltd., Loane Square, Madras, G. T.	200
(3) The Andhra Sugar Ltd, Tanuku, (M. S. M. R.), West Godavari, M/A. M/s. Ranga Rao & Co.	600
(4) The Madura Sugar and Allied Products Ltd, Madura, Kodai Kanal Road, M/A. Pandia Rajan & Co. Ltd. P. O. Ammayanaya Kanur.	317
(5) Murang Sugar Factory Ltd., Murang, Distt. Purnea.	
(6) Shri Vikram Sugar Mills Ltd., Vikramgarh, (B. B. C. & I). M/A. M/s Hiralal & Co., 121 Jaswant Niwas Road, Indore.	500
(7) The Salar Jung Sugar Mills Ltd., Munirabad, M. S. M. (Old Gandevi Fy. at Baroda.)	300

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- (3) Kenetics of Development of Colour in Sugar Solutions—By K. S. G. Doss and S. K. Ghosh.
- (4) Theory of Ash Determination by two Conductance Measurements—By K. S. G. Doss and K. K. Gupta.
- (5) Sugar Recovery from Molasses—By C. A. Kloppenburg.
- (6) Continuous Fermentation of Molasses using High Brix Wort, Part 1—By H. D. Sen and B. D. Kapoor.
- (7) Utilisation of Waste Products of Sugar Factories for Solving Housing Problems—By D. R. Dhingra and S. N. Ghatak.
- (8) On the Utilisation of Top Selt as Seed-Cane—By G. N. Misra.

## The 17th Annual Convention—Part II.

- (9) Cane Supplies to Some Sugar Factories in the Madras Presidency—By J. M. Saha, N. S. Jain, G. M. Nigam and P. K. Ray.

- (10) Practical Hints on Scum Filtration using Filter Presses—By Ram Bihari Lal Mathur.
- (11) Some Thoughts on Vacuum Pan Operations—By R. N. Agarwal.
- (12) Results of Biochemical Control of Sugarcane Plantation for the year 1948—By Pierre Halais.

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- (13) Arrowing of Sugarcane—By G. P. Kapoor.
- (14) Drive for Steam and Fuel Economy at Ravalgaon—Review of 10 year Progress—By S. N. Gundu Rao, V. V. Lonkar and H. G. Kulkarni.
- (15) Some Considerations of Boiler Performance from the Angle of Boiler Feed and Fluctuating Steam demand in Sugar Factories—By A. Sanghi.
- (16) Working of Filter Presses and Sweetening off of Cakes—By J. M. Saha.
- (17) Kinetics of Colour Developments in Invert Sugar Solutions Part II—By K. S. G. Doss and S. K. Ghosh.
- (18) Cooling of High Grade Masseccutes—By D. Parashar and R. N. Agarwal.
- (19) Ash Percentage in Indian Final Molasses from Electrical Conductivity Measurement at 35°C—By K. S. G. Doss and K. K. Gupta.
- (20) Theory of Ash Determination by Three-Conductance Measurements—By K. S. G. Doss and K. K. Gupta.
- (21) Resins from Molasses—Sugar and other Carbo-hydrates—By M. S. Bhatnagar and S. Roy.
- (22) Aconitic Acid from Molasses—By H. D. Sen and H. C. Srivastava.
- (23) Plastic from Sugar and Molasses—By H. D. Sen and H. C. Srivastava.
- (24) Edible Syrup from Molasses—By H. D. Sen and H. C. Srivastava.
- (25) Sugarcane Wax—By S. N. Gundu Rao and H. G. Kulkarni.
- (26) The Behaviour of Colouring Matters and other Objectionable Ingredients present in Khandsari Sugar during the Process of Refining—By D. R. Parashar.
- (27) Neera, its Nature, Composition and Preservation—By D. G. Walawalkar.

**APPENDIX-B.**  
**New Exchange Rates.**

The following are the current EXCHANGE RATES with comparison of those quoted prior to devaluation :—

Per £ sterling.		New Rate.	Old Rate.
Argentina.	Peso	(a) Not	devalued.
Australia.	£A	1½	1½
Belgium.	Frs.	140	176
Brazil.	Cr.	51.80	75.4416
Canada.	\$	3.08	4.03
Czechoslovakia.	Kr.	(a) Not	devalued.
Denmark.	Kr.	19.34	19.34
Egypt.	£E	.97½	.97½
Eire.	£	Par.	Par.
Finland.	Mk.	(a)	Devalued.
France.	Frs.	980	1,097
Greece.	Drachma	(a)	Devalued.
Holland.	Fls.	10.64	10.69
Hong Kong.	H. K. \$.	1s. 2 7/8d.	1s. 2 7/8d.
Iceland.	Kr.	26½	26½
Iran.	Rial.	(a) Not	devalued.
Iraq.	Dinar.	Par.	Par.
Israel.	£	Par.	Par.
Italy.	Lira.	(a) Not	devalued.
New Zealand.	£	Par.	Par.
Norway.	Kr.	20	20
Philippines	Peso.	5.63	8.10
Poland.	Zloty.	(a) Not	devalued.
Portugal.	Esc.	80.50	100.75
South Africa	£	Par.	Par.
Straits Settlements	St. \$	2s. 4 1/16 d.	2s. 4 1/16d.
Sweden.	Kr.	14.49	14.49
Switzerland.	Frs.	12.12	17.35
Turkey.	£T.	(a) Not	devalued.
U. S. A.	\$	2.80	4.03
Per Rupee		1s. 6d.	1s. 6d.
India.		2s. 1.9d.	1s. 6d.
Pakistan.		1s. 6d.	1s. 6d.
Burma.		1s. 6d.	1s. 6d.
Ceylon.		(a) No official rate quoted.	

**APPENDIX-F.****TARIFF BOARD'S REPORT  
ON THE CONTINUANCE OF PROTECTION TO****SUGAR INDUSTRY.****SUMMARY OF CONCLUSIONS & RECOMMENDATIONS AND THE  
GOVERNMENT OF INDIA'S RESOLUTION THEREON****RESOLUTION****Tariffs**

No. 33 (1)-T. B./-5.0 The Government of India have considered the Report of the Indian Tariff Board on the sugar industry. The recommendations therein cover a very wide field. On the more urgent among them, Government have decided after careful consideration to take action as indicated hereafter. Government will examine the other recommendations and announce their decisions thereon as early as possible.

(i) **The Indian Sugar Syndicate.** After exhaustively examining the activities of the Syndicate ever since its inception, including the part played by it during the sugar crisis of July-August 1949, the Board has stated :—

"In recent years, the Indian Sugar Syndicate's control over its members has been ineffective. The Syndicate does not appear to have ever tried to improve the efficiency of its members or carry out research in respect of sugarcane and sugar. Nor does it appear to have ever taken any effective steps to prevent its members from charging high premiums for sugar in conditions of scarcity. On the contrary, it has, whenever free from control, abused its monopolistic powers so as to help its members make large gains at the expense of the consumer."

"Subsequent to decontrol of sugar in December 1947 the Syndicate showed its reluctance to submit itself to control and supervision by the Sugar Commission of the Government of U. P. and Bihar."

"In its dealings with the Government of U. P. and the Sugar Commissioner regarding the release of sugar quotas in 1949, the Syndicate was far from being straightforward."

"By its improper policy of quota releases and approaching the Government of India in June, 1949 to negotiate for the export of sugar, the Syndicate created a psychology of scarcity in the country which led to hoarding by merchants and consumers like confectioners."

It has then reached the following conclusions :—

"The Governments of U. P. and Bihar should rescind clause (a) of Section II of the Sugar Factories Control Acts and the rule made thereunder which requires all factories in the two Provinces to be members of the Syndicate as a condition precedent to their obtaining the annual crushing licence. As to whether or not the Syndicate should continue as a voluntary organisation of some or all of the sugar mills in the two provinces it is considered appropriate and desirable that the matter should be left to be decided by the mills themselves without any interference from Government."

The Government of India agree with this conclusion and propose to move the U. P. and Bihar Governments in this behalf.

(ii) **Sugar Crisis.** The Board has stated that the main contributory factors which caused the sugar crisis of July-August 1949 were :—

- (a) large and rapid quotas released by the Syndicate ; and
- (b) excessive wagon supply.

In view of the decision reached with respect to the Syndicate it is not necessary to dilate on the question of these particular quota releases. On the question of excessive wagon supply the Board has recommended " in the public interest this matter should be fully investigated."

The Board has also recommended that "Government should institute an enquiry into the allegation that sugar intended for consumption in India was in fact moved into Eastern and Western Pakistan on an appreciable scale in 1949" and this also possibly contributed to the scarcity.

Government accept these recommendations and necessary action will be taken to implement them.

Further, in the course of the debate on sugar in the Constituent Assembly (Legislative) on 24th December 1949 Government stated that "to the extent the Tariff Board Report on the sugar industry does not cover any aspect of the sugar crisis which occurred during July-August 1949, Government will arrange to have a full enquiry made by a body which thoroughly satisfies the House". The question whether any such further enquiry is necessary regarding the sugar crisis and, if so, what its scope should be is now engaging the attention of Government and a decision thereon will be taken shortly.

(iii) **Protection.** Recommending withdrawal of protection to the sugar industry, the Board has stated :-

"The difference between the present price of indigenous sugar (Rs. 28-8-0) and the estimated landed cost (Rs. 22-8-0) being Rs. 6-0-0 per maund, the present duty of Rs. 6-0-0 per maund would give adequate protection to the indigenous sugar industry, if such protection were needed. There is however no danger of any competition from low-priced imports of sugar on an appreciable scale for the next two or three years, because the surplus sugar available for the "free market" is likely to continue to be small and, particularly because, in the context of the present balance of payments position of the country Government are not likely to permit imports of large quantities of sugar. Further, according to our estimate, the fair ex-factory price of indigenous sugar (E-27) can be reduced to Rs. 24-12-0 per maund in 1950-51. We have felt that the continuance of protection for the last 18 years has produced an attitude of complacency on the part of the three parties, namely, Government, the industry and the cultivator who are responsible for the efficiency of the industry and that consequently they have not taken sufficient steps to improve the overall efficiency of the industry so as to bring down its cost of production. We, therefore, consider that this is the most suitable opportunity to withdraw the protection without any serious risk to the industry. We accordingly recommend that the protection to the sugar industry should not be continued beyond 31st March, 1950, Government being free thereafter to impose such revenue duty as they consider necessary."

"If there is a change in Government's policy regarding imports of sugar in the near future giving rise to severe competition from foreign imports so as to jeopardise the position of the sugar industry, it will be open to the industry to approach Government for the restoration of protection. And we have no doubt that Government will institute an enquiry to review the position as expeditiously as possible and restore protection to the industry if it is found to be justified."



Government have accepted this recommendation and action is being taken to give effect to it.

## SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The conclusions and recommendations are summarised below :—

### Introduction

(1) The scope of the present inquiry covers, besides the question of continuance of protection to the sugar industry, questions relating to the progress of sugarcane research and development, the growth, structure, efficiency and marketing methods of the white sugar industry, the machinery and methods of price fixation for sugarcane and sugar, the utilisation of by-products as well as the activities of the Indian Sugar Syndicate and the recent sugar crisis in the country.

### World Sugar Position

(2) In 1948-49, the total world production of sugar was 37.3 million short tons, which is the highest figure of production attained since 1931-32. Production of sugar in all the continents of the world has now either reached or exceeded the pre-war level except in Europe including U. S. S. R. and Asia. When Java, Formosa and Philippines attain the pre-war level of production, which they expect to do in the next 2 or 3 years, the world production will go up by about 2 million tons.

(3) The per capita consumption of sugar in most countries of Europe has suffered a serious set-back owing to internal production having been dislocated during the last war and also due to shortage of foreign exchange for buying sugar. In most parts of the continent of America, consumption has increased except in Canada. There has been a marked increase in consumption in Africa since 1934-38. In most countries of the continent of Asia, consumption has been seriously curtailed except in Ceylon and India.

(4) The world production of sugar during the 1949-50 season is expected to increase by about 2 to 4 per cent. as compared with the 1948-49 season.

(5) The retail price of sugar in India compares favourably with that prevailing in most European countries, but is definitely higher than the prices ruling in the majority of non-European countries and in particular in important sugar producing countries such as Australia, South Africa, Brazil, Cuba and the U. S. A.

(6) The 'free market' requirements of sugar in 1949-50 are expected to be more or less the same as in the previous year. The supplies available for the 'free market' in the current year are expected to cover the requirements of the 'free market' and leave a small balance of about half a million tons.

(7) The stocks available with the different countries at the end of 1949 will be lower than those in 1948, except in the case of Cuba.

(8) The question of protection from external competition to the sugar industry in different countries of the world has not yet become so important as it was in the pre-war period.

### Sugarcane

(9) Government should extend their crop-cutting experiments to sugarcane, so that the statistics of sugarcane production, on which the future planning of the industry and the assessment of its progress must be based, may be placed on a surer foundation.

(10) During the last 18 years, the maximum production of sugarcane was attained in 1947-48 when the output amounted to 58.03 million tons.

(11) In spite of the improvement made in the last few years, the yield of sugar-cane at the present day is still below the figure of 15 tons per acre, which had been attained within the first 2 years of protection.

(12) The average yield of cane per acre in U. P. and Bihar has gone down, while the yield in Bombay and Mysore has increased.

(13) The tropical conditions of South India are more suitable for cane development than the sub-tropical climate of North India.

(14) The sucrose content of cane in India is the lowest among the sugar producing countries with the exception of British Guiana and Louisiana.

(15) Although the sugar industry has greatly expanded during the last 18 years, the proportion of the cane crop utilised in *gur* manufacture is still predominantly large in all the Provinces except Bihar.

### **Progress of the White Sugar Industry**

(16) Production of sugar in the country during the last 3 years was 9.01 lakh tons in 1946-47, 10.75 lakh tons in 1947-48 and 10.01 lakh tons in 1948-49. The record output of sugar so far reached in the Indian Union was in 1939-40 when the production amounted to 12.07 lakh tons.

(17) The maximum quantity of sugarcane was crushed in 1939-40 when it was about 127.52 lakh tons.

(18) The maximum duration of the crushing season was in 1936-37 when it was 138 days. During the last 10 years, the length of the crushing season has been on the decrease in all the Provinces and the decrease is particularly marked in U. P., Bihar and West Bengal.

(19) The recovery percentage of cane has shown marked improvement since the grant of protection to the industry. The figure of recovery rose to above 10 per cent. during the period from 1942-43 to 1945-46, while during the next 3 years it declined to below 10 per cent.

(20) There is ample scope for further improvement in the milling efficiency in India.

(21) The increase in mill extraction in the last few years has been counter-balanced by a corresponding fall in the boiling house recovery.

(22) On the whole, Indian factories compare favourably with the factories in foreign countries so far as pol. balance is concerned. The pol. losses in India are lower than those in Queensland, Louisiana and British Guiana. On the other hand, press-cake loss in India is higher than in Hawaii, Natal, Queensland and Trinidad. Natal has recorded the lowest loss in this respect.

(23) The "efficiency of clarification" has been the lowest in 1945-46 and highest in 1947-48, the respective figures being 4.08 and 10.61.

(24) The reduced overall extraction in India is higher than that in Mauritius, Natal and British Guiana but is lower than that in Hawaii and Trinidad.

(25) The percentage of extra fuel, namely, coal and firewood, consumed by the Indian factories has definitely gone down in recent years.

(26) Taking both colour and grain into consideration, while D-24 was the predominant quality in the pre-war years, D 27 is so at the present time. The quality of sugar produced in India compares favourably with sugar produced in any other country.

(27) The number of factories which refines *gur* to manufacture sugar has been dwindling and the average annual production of sugar by this process has come down from 64,900 tons in 1933-34 to 5,000 tons in 1947-48. As this process is uneconomic, it cannot stand the competition of factory sugar.

### **Demand for White Sugar**

(28) The consumption of sugar during 1948-49 is estimated at 12 lakh tons, while the demand during the next two or three years is estimated at 13 lakh tons per annum. The future estimate is based on the expectation that the price of sugar will be steadily reduced, that there will be increased industrial consumption and that there will be no difficulty regarding transport of sugar to the consuming centres. So long as, however, there is control over sugar, the consumption will have to be limited to the quantity available from indigenous production and imports, if any.

(29) It should be possible for the sugar industry to attain a production of 12 lakh tons per annum in the next two or three years, provided steps are taken to improve the cane supply to mills. Even if this level of production is reached, it will not be adequate to meet the present demand of 13 lakh tons per annum in the country. With the improvement of economic conditions, the domestic demand is likely to increase further in the next four or five years. There is, therefore, scope for increasing the productive capacity of the industry either by expansion of the existing units or installation of a few new units.

### **Khandsari Sugar**

(30) The immediate effect of protection to the sugar industry on the *khandsari* sugar was an increase in the production of *khandsari* sugar. But the imposition of excise duty by Government in 1934 and the increasing competition of factory sugar have adversely affected the *khandsari* industry, with the result that until now, it has not attained the level of production of the pre-protection period.

(31) The technical improvements in the manufacture of *khandsari* sugar as developed in the Research Station at Bilari can be expected to enable the *khandsari* sugar industry to survive and withstand the competition of the vacuum pan factories.

(32) The improved process of manufacture of *khandsari* sugar as developed at the Bilari Research Station has improved the quality of *khandsari* sugar and is a distinct improvement on the older method.

(33) In order to encourage the *khandsari* sugar industry, *khandsari* sugar should be exempted from payment of excise duty and such technical assistance as is necessary should be given to encourage its production in efficient units and on economic lines.

### **Cane Gur**

(34) The maximum production of cane *gur* was in 1944-45 when the output amounted to about 3.6 million tons.

(35) *Gur* production in India did not suffer any set-back on account of the grant of protection to the sugar industry. On the contrary, the expansion of its production was almost parallel to that of white sugar except in 1939-40, when *gur* production declined though sugar production made a considerable headway.

(36) The provincial Governments should make arrangements for keeping a proper record of Provincewise imports and exports of *gur*, so that it may be possible to estimate more accurately the consumption of *gur*.

(37) The new technique of clarification of cane juice and storage of *gur* mentioned in paragraph 35 should be examined by the Provincial Governments and, that if it is found to be efficient, it should be made widely known to *gur* producers.

(38) The cost of production per maund of *gur* exclusive of the price of cane, ranges from Rs. 2-10-6 in U. P. to Rs. 7-6-0 in Assam.

### **Palm Gur**

(39) Date palm *gur* contains a higher percentage of sucrose than cane *gur*. The protein content and calorific value are also comparatively high in date palm *gur* which is, therefore, more nutritious.

(40) The yield of *gur* per tree per annum is about one maund from cocoanut, half a maund from palmyra or *tad* and a quarter maund from date palms.

(41) The number of existing palm trees in India is estimated at about five crores (i.e. 50 millions) which can yield about a million tons of *gur*; but at present, all these palms are not being utilised for production of palm *gur*.

(42) There is considerable scope for the expansion of the palm *gur* industry in Bengal and Madras as well as in other parts of the country but its further development depends on proper planning and State aid.

(43) It is essential to standardise tapping tools used in tapping palm trees, methods of tapping and boiling of palm juice.

(44) The palm *gur* industry needs technical assistance and guidance. It is also necessary to establish agencies for applying the results of research to palm *gur* manufacture and to make the cultivator actively conscious of the need of technical improvement. It is, therefore, essential to organise research on palm *gur* under the administrative control of the Central Government.

(45) In addition to the existing Central Palm *Gur* Training school at Cuddalore, Government should consider the desirability of starting a Central Palm *Gur* Research Laboratory at a suitable place to conduct research into the various problems of the palm *gur* industry. A beginning in this direction can be made by establishing a section on palm *gur* manufacture in the Indian Institute of Sugar Technology, Kanpur. It may also be necessary to start a few regional laboratories under the palm *gur* section of the Sugar Institute, taking into consideration the different types of palms, as all the varieties of palms which yield sugar are not found in the same locality.

(46) Adequate funds should be made available both by Central and Provincial Governments for training and research in palm *gur*. The subsidy granted at present by the Government of India for Provincial palm *gur* development schemes should not be reduced.

### **Research and Development**

(47) Judging by the figures of collection and expenditure of cane cess on cane development, we consider that the Provincial Governments can and should contribute larger amounts for development work in their own areas. If the Indian Central Sugarcane Committee can make out a case for larger grants from the Centre, we recommend that the Central Government should favourably review the position and, if necessary, increase the grant from the Central excise.

(48) As Coimbatore is the chief breeding station where new varieties are evolved and popularised, it is necessary that this station should be more adequately equipped than it is now.

(49) The vital importance of extension of irrigation facilities for cane development was stressed by all the interests during our inquiry and we desire to draw the attention of the Provincial Governments to this matter.

(50) The best method of overcoming pests and diseases is the use of pest and disease resistant varieties of cane, the testing of which should be given due importance at the sugarcane research stations.

(51) The record of research and developmental work both on sugarcane and sugar has been on the whole satisfactory. There is, however, still a vast scope for such work both at the farm and at the factory. We realise that, for financial reasons it may not be possible to support any considerable expansion of this work in the near future ; but what is required at the present juncture is greater co-ordination of the work which is already being done and which has been planned for the immediate future. It is equally important to ensure that the results of research undertaken at the various institutions should actually reach the cultivator at the farm and the manufacturer at the factory without delay. We recommend that the Central and Provincial Governments, with the co-operation of the industry, should take adequate steps in this direction.

### **Power Alcohol.**

(52) The development of the power alcohol industry in the country is essential, both owing to the great importance of indigenous production of liquid fuel in the defence and economy of India and owing to the need for economical disposal of surplus molasses produced by the sugar factories, which incidentally, will go to reduce the cost of production of sugar.

(53) The expansion of the power alcohol industry and the allocation of distilleries will have to be planned on the basis of production of molasses in the country.

(54) The total quantity of molasses produced at present in the different Provinces and States is about 4.17 lakh tons.

(55) There are at present fourteen distilleries in the country producing power alcohol with a total installed capacity of 9.5 million gallons per annum. Four more distilleries with a total capacity of 3.7 million gallons are under construction and are expected to be in production by the end of 1950. Apart from this, there are proposals for establishing three other distilleries in the Madras Province.

(56) The highest production of power alcohol in the country has been 3.10 million gallons only per annum. This lag in production is due to inadequate and irregular supply of molasses as also of coal, delay in the disposal of stocks of alcohol and the unsatisfactory quality of the molasses supplied by the sugar factories. The distilleries have been getting a yield of only 1.7 gallons of power alcohol against the standard yield of 2.1 gallons from one maund of molasses.

(57) Government of India have fixed a production target of 10 million gallons of power alcohol for 1950 and expect the production to increase to 23.6 million gallons in the next five years. There is every prospect of this target being realised in view of the fact that the present installed capacity along with the future plans for expansion, when they materialise, will work out to 23.60 million gallons.

(58) It is necessary that the control of molasses should be vested and exercised by the Central Government so as to make it possible to market the surplus quantities of power alcohol produced in one Province in the neighbouring areas in admixture with petrol, so that the problem of disposal of surplus neat power alcohol can, to some extent, be solved.

(59) The price of alcohol is much lower in India than in other countries because the raw material costs less. Some of the handicaps from which the power alcohol industry suffers should be removed if more production is to be secured.

(60) It will be desirable to recruit Excise Inspectors for power alcohol control work in future from the ranks of persons trained at the Indian Institute of Sugar Technology, Kanpur, in the manufacture of power alcohol of the requisite standard and quality.

(61) It is imperative that steps are taken to see that the molasses are properly stored by the sugar factories in covered tanks wherever possible and not allowed to be diluted, intentionally or unintentionally, by rain water. A suitable portion of the amount realised by the U. P. Government through the sale of molasses should be utilised for constructing tanks and providing suitable storage in order to maintain the quality of the molasses.

(62) There is considerable scope for reduction in the distribution and mixing charges of the admixture of power alcohol and petrol. Steps should be taken to arrive at a reasonable settlement with the petrol distribution companies in this matter. In the event of their unwillingness to reduce their charges, it is imperative that a separate organisation should be set up for the purpose under the control of the Central Government. The possibilities of the scheme for marketing power alcohol on an all-India basis as recommended by the Sugar Panel, should be carefully examined by Government without delay.

(63) Unless the control of the power alcohol industry is taken over by the Central Government, it is not possible for the different Provinces to have compulsory admixture of power alcohol with petrol and enforce it wherever required. For this purpose, it is essential that there should be a uniform rate of excise duty and a uniform excise policy in all the Provinces and States of the Indian Union.

(64) If proper utilisation of such by-products as carbon dioxide, heads, fusel oil and yeast and potash can be ensured, it is bound to reduce the cost of manufacture of alcohol.

(65) We endorse the recommendation of the Sugar Panel that, in view of the importance of the development of power alcohol industry for national security, the excise duty levied on power alcohol should be lower than that on petrol, so that power alcohol-petrol mixture may be available to consumers at a somewhat lower price than straight unmixed petrol.

### **Other By-products**

(66) The major by-products of the sugar industry are (i) cane-trash, (ii) bagasse, (iii) press-mud and (iv) molasses.

(67) The Agricultural Departments of the Provinces and States should take steps to ensure the use of cane-trash for purposes of manure instead of allowing it to be burnt as it results in the loss of valuable organic manure.

(68) The sugar industry should develop such products from cane-trash as are mentioned in paragraph 68 (b) and, where necessary take the technical advice and assistance of the Council of Scientific and Industrial Research and the Indian Institute of Sugar Technology.

(69) The improved varieties of Indian cane grown at present have high fibre content and it should be possible for sugar factories to have surplus bagasse at the end of every season which can provide sufficient raw material for the manufacture of "celotex" or building board, paste board, paper and alpha-cellulose. The success of these new lines of development will depend upon research which should be undertaken by the sugar industry with the advice and guidance of the Council of Scientific and Industrial Research.

(70) There is a possibility of commercial extraction of cane-wax from press-mud which, after refining, gives a product comparable to imported cannarauba wax; used in the manufacture of boot polish.

(71) Press-mud can be used for manuring cane fields. The Indian Institute of Sugar Technology has standardised a method for the manufacture of compost from press-mud and cane-trash in factory premises. The compost prepared from press-mud contains phosphates and potash.

(72) Besides its use in the manufacture of power alcohol molasses can be profitably used at present in (i) conversion into edible molasses (ii) acetic acid manufacture and (iii) cattle feed.

(73) Molasses are a wholesome food. Apart from the energy equivalent of their carbo-hydrate content, the use of molasses as food has a beneficial effect upon digestion.

(74) The manufacture of acetic acid and particularly glacial acetic acid from molasses has possibilities in view of the development of the Indian films and rubber industries.

(75) The use of molasses for cattle feeding is quite popular in other countries where nutritional standards of cattle feeding are much higher than in India. The experiments conducted by the Indian Institute of Sugar Technology show that a mixture of two parts of molasses with one part of bagasse screenings can be used as a satisfactory cattle feed. Molasses as a cattle feed are valued because of their palatability and general good effect on the digestive system.

### **Indian Sugar Syndicate**

(76) In recent years, the Indian Sugar Syndicate's control over its members has been ineffective. The Syndicate does not appear to have ever tried to improve the efficiency of its members or carry out research in respect of sugarcane and sugar. Nor does it appear to have ever taken any effective steps to prevent its members from charging high premiums for sugar in conditions of scarcity. On the contrary, it has, whenever free from control, abused its monopolistic powers so as to help its members make large gains at the expense of the consumer.

(77) Although the Syndicate assisted the industry to tide over the crisis of 1937-38 by eliminating internal competition, it failed to pay due regard to the interests of consumers by keeping the price level unduly high. As U.P. and Bihar manufacture about 75 per cent. of the total production in the country, and as these two Provinces alone produce a surplus above their own requirements, the Syndicate by its legal status as the exclusive selling organisation for U. P. and Bihar sugar, acquired a virtual monopoly in respect of indigenous sugar. Taking advantage of this position the Syndicate manipulated the release of sale quotas in such a manner that prices continued to rise since 1938.

(78) In fixing the new price for sugar at Rs. 35-7-0 per maund immediately after decontrol in December, 1947, certain demands, such as, an additional profit of Rs. 2 per maund of sugar and an extra allowance of Re. 0-5-6 for manufacturing charges made by the Syndicate, which though accepted by the Government of U. P. were unreasonable. In fixing this price the Governments of U. P. and Bihar and the Syndicate did not have sufficient regard for the interests of the consumers.

(79) Subsequent to decontrol of sugar in December, 1947, the Syndicate showed its reluctance to submit itself to control and supervision by the Sugar Commission of the Governments of U. P. and Bihar.



(80) In its dealings with the Government of U. P. and the Sugar Commissioner regarding the release of sugar quotas in 1949, the Syndicate was far from being straightforward.

(81) The control of the Sugar Commission prior to the introduction of the war-time central control over the distribution of sugar had been so systematic and effective that there was no opportunity for the Syndicate to abuse its monopolistic powers to the detriment of public interest. If, with the lapse of central control, the Governments of U. P. and Bihar had taken adequate steps to exercise proper control over the Syndicate, sugar would have been distributed in a reasonable manner.

(82) The main contributory factors of the sugar crisis of July to August, 1949 were (a) large and rapid quota releases by the Syndicate in 1949 and (b) excessive wagon supply.

(83) By its improper policy of quota releases and approaching the Government of India in June, 1949 to negotiate for the export of sugar, the Syndicate created a psychology of scarcity in the country which led to hoarding by merchants and consumers like confectioners.

(84) The Government of U. P., in directing the Syndicate to release the remaining 20 per cent. of the season's sugar production committed "an error of judgment". It is an error of judgment because if the Government had tried to ascertain the relative position regarding the released quotas and the actual despatches from month to month, they would not have sanctioned the release of the meagre balance of 20 per cent. with six months of the year still remaining to be covered. Even supposing that an error of judgment had been committed by the U. P. Government in the matter, the Syndicate cannot absolve itself of the charge of lack of sense of responsibility both in the matter of quota releases and in approaching the Government of U. P. over the head of the Sugar Commissioner. Undoubtedly, there was a lack of co-ordination between the Government of U. P. and the Sugar Commissioner, which gave an opportunity to the Syndicate to mislead the Government and ignore the Sugar Commissioner.

(85) The explanation tendered by the Chairman of the Syndicate in the matter of quota releases by the Syndicate goes to show that the Syndicate had two minds and was speaking with two different voices before the Government and the public and the Government of U. P. and Central Government.

(86) It has been suggested by the Syndicate that one of the reasons for the crisis was large scale hoarding by merchants and consumers. Even granting that hoarding on a large scale by merchants and consumers took place, it cannot be gainsaid that such hoarding became inevitable as a result of the large and rapid releases of quotas by the Syndicate itself.

(87) The actual average monthly despatches of sugar during February and March 1949 were higher than those during April to July 1949 and it was not really necessary for Government to have intervened in the matter of wagon supplies at that stage.

(88) The actual average monthly despatches during the five months April to August 1949 were excessive. These despatches must have been largely facilitated by the allotment of more wagons than was necessary. In the public interest this matter should be fully investigated.

(89) In regard to the suggestion that the increased consumption of sugar due to the increase in the purchasing power of the people and the shift of demand from gur to sugar, even granting that there was a net increase in the demand for



sugar, such increase could not have been so sudden or so large as to account for the sudden rise of scarcity, particularly because the supply available in 1949 was comparatively high. As a matter of fact, the shift of demand from *gur* to sugar took place after sugar had become scarce and, therefore, the shift in demand from *gur* to sugar was the *effect* of the scarcity and not the cause of it.

(90) Government should institute an enquiry into the allegation that sugar intended for consumption in India was in fact moved into Eastern and Western Pakistan on an appreciable scale in 1949.

(91) Though sugar was de-controlled from the end of December 1947, and control over the Sugar Syndicate reverted under the law to the U.P. and Bihar Sugar Commission, the Government of India ought to have taken even closer interest than they did in view of the all-India importance of sugar.

(92) If all the stocks with the factories and merchants had been frozen about 26th August, 1949 when the U.P. freezing orders were issued, the total available supply would have practically sufficed to meet the normal requirements of the country until the commencement of the new season.

(93) It would appear that :

- (i) Owing to the unilateral action of the U. P. Government in freezing the stocks with the U. P. factories alone, an opportunity was given to the sugar mills outside U. P. as well as the mills' selling agents and dealers and merchants all over the country to send large stocks of sugar underground; and
- (ii) if co-ordinated and synchronous action had been taken by the Central and Provincial Governments, the crisis of sugar scarcity could have been largely held in check.

(94) The measures adopted by the Central Government to allocate and distribute the available stocks of sugar have been satisfactory.

(95) Considering the present balance of payments position, the possibility of imports of sugar in the next one or two years is rather small. That being so it is necessary and desirable that the system of all-India control over distribution that had been adopted from April, 1942 to December, 1947 and which has recently been reimposed with effect from 2nd September, 1949, should be continued until such time as the supply available is about 14 lakh tons, either by an increase in production or by supplementing internal production by adequate imports. In order that such control may be effective, it is necessary that the present machinery for the collection and compilation of sugar statistics should be strengthened so as to be able to obtain correct and complete statistics of production, stocks and despatches. Sugarcane and sugar prices should be statutorily fixed by the Central Government after due consultation with the representatives of cane growers, the sugar industry and the Provincial Governments. If and when, however, it is found that, owing to an increase in production or fall in demand or large imports of sugar or a combination of some or all of these factors, the available supply is definitely in excess of demand, the question of discontinuing the control should be reviewed.

(96) Although there is some force in the suggestion that if the control on sugarcane and sugar prices is removed, the production of sugar would increase, we are unable, for the reasons explained in paragraph 79 (d), to recommend de-control in the present circumstances.

(97) For the reasons explained in paragraph 80, we recommend that the Governments of U.P. and Bihar should rescind clause (a) of Section 11 of the Sugar Factories Control Acts, and the rule made thereunder which requires all factories in the two Provinces to be members of the Syndicate as a condition precedent to their obtaining the annual crushing licence.

(98) As to whether or not the Syndicate should continue as a voluntary association of some or all of the sugar mills in the two Provinces, it is considered proper and desirable that the matter should be left to be decided by the mills themselves without any interference from Government.

### **Sugarcane price**

(99) Although the minimum price of cane recommended by the Sugar Commission to the Governments of U.P. and Bihar may be regarded as based on reasonable grounds, the price eventually fixed by the two Governments for the years 1947-48, 1948-49 and 1949-50 were appreciably higher than those recommended by the Sugar Commission as well as those suggested by the Director, Indian Institute of Sugar Technology.

(100) The present procedure for fixing minimum price for cane is unsatisfactory and it should be replaced by a more rational procedure which should be based, as far as possible, upon authentic economic data.

(101) The minimum price for sugarcane should be fixed in such a manner as to make it fairly attractive to the cane grower without unduly raising the price of sugar or encroaching upon the minimum margin of profit to the manufacturers. In fixing the minimum price for cane, the factors mentioned in paragraph 82 should be taken into consideration.

(102) The average price of *gur* in the next 2 or 3 years is estimated at Rs. 12-15-7 per maund.

(103) On the basis of the estimated cost of cultivation of cane for India as a whole and the fair price of cane based on the estimated return from *gur*, a price of Rs. 1-7-0 per maund of cane may be regarded as fair in the present circumstances. When, however, the intensive research and development programmes now taken in hand by the Provincial Governments are carried out, the price for cane can be reduced to Rs. 1-4-0 in the next two or three years and possibly to Re. 1-0-0 per maund in a period of five years.

(104) We agree with the views expressed by the Technical Committee on Sugarcane that the system of paying for sugarcane according to its quality, which is in vogue in other sugar producing countries, cannot be introduced in India, because such a system will require chemical analysis of cane for which there is no suitable organisation in the country.

(105) It would be to the interest of the sugar mills to encourage the production of better qualities of cane by offering a suitably higher price than the minimum. It is expected that the more progressive sugar mills will consider the practicability of doing so.

(106) The principle underlying the scheme of variation of prices of cane according to the date of its delivery, as suggested by Mr. R.R. Panje, Cane Agronomist, Shahjahanpur Cane Research Station, U.P. is sound. The Central and Provincial Governments and the Indian Central Sugarcane Committee should explore the practicability of this scheme.

(107) The expectation that there would be gradually built up a bond of mutual interest between the sugar mills and the cane growers by "zoning" or reserving cane areas in the neighbourhood of a sugar mill, has not been fulfilled in practice.

(108) In order to ensure that the sugar mills are supplied with the full quantity of cane contracted for between the sugar mills and the cane growers, it has been suggested that a ban should be imposed on the production of *gur* in the reserved areas. We do not consider that the imposition of such a ban would be practicable in the present circumstances. A proper remedy would be for the sugar mills to enlist the goodwill and active co-operation of the cane growers by making liberal advances in the shape of improved seeds and manures and providing irrigational facilities and improved means of communication.

### **COST OF PRODUCTION AND FAIR EX-FACTORY PRICE OF WHITE SUGAR**

(109) The present procedure for fixing the prices of sugarcane and sugar is defective in several respects. A new procedure which would ensure a planned development of the industry in all its aspects including sugarcane research and development, proper location of factories and normal efficiency of plant, should be adopted for the fixation of fair ex-factory prices of sugar in the future.

(110) For the purpose of price fixation, certain standards should be laid down in respect of the basic factors of price determination, such as the capacity of the factory, efficiency of the plant, etc. Such standards should be based upon the actual working conditions of a fair number of representative factories located in different zones. The standards laid down in paragraph 86 should be adopted for this purpose.

(111) The Provincial Governments of U.P. and Bihar have spent only a fraction of the proceeds of cane cess on cane development work, the balance of the collection being absorbed in their general revenues. The explanation given by these Governments in this connection is far from satisfactory. The levy of a tax on a raw material is, as a rule, wrong in principle and it is particularly objectionable when imposed on the raw material of an industry like sugar which has been nursed by the consumers all over the country and for which they have made a heavy sacrifice. It is, therefore, strongly recommended that all the Provincial Governments should either spend the major part of the proceeds of the cane cess on intensive cane development work so as to bring about a rapid reduction in the cost of cane, or alternatively, reduce as soon as practicable, the rate of the cess to a more reasonable figure, consistently with the requirements of cane development programme.

(112) Expenditure towards co-operative societies' commission is incurred by the sugar mills only in U.P. and Bihar. The main function of the co-operative societies at present is development and marketing of cane, which is also largely the business of the Government's Cane Development Department. Therefore, the funds required by these co-operative societies for cane development should be provided out of the money raised from cane cess.

(113) The estimated ex-factory price of sugar E-27, for 1949-50 is Rs. 27-8-0 per maund. As, however, it is not desirable or practicable to alter the price already fixed by Government at this time of the year, the present statutory price of Rs. 28-8-0 per maund should remain in force until the end of the current sugar year.

(114) The estimated fair ex-factory price of sugar, E-27, for 1950-51 is Rs. 24-12-0 per maund. The maximum price for this quality of sugar for 1950-51 should be fixed at this level. If, however, our recommendation regarding the permanent employment of the technical staff *viz.* shift chemists, shift engineers, chemist-

in-charge of the laboratory, laboratory chemists, head panmen and panmen is given effect to by the industry, the estimate of fair ex-factory price, as stated in paragraph 93, may be increased by Re. 0-0-9 per maund of sugar.

(115) Reduction in the price of sugar E-27 to below Rs. 24-12-0 per maund can be made in the next four or five years as explained in paragraph 94.

(116) To ensure definite progress towards increase in the yield of cane per acre and a consequent reduction in its cost and price in a period of four or five years, it is necessary that the success of the various research and development programmes undertaken by the Central and Provincial Governments, should be measured in future only in terms of a reduction in the price of cane *consequent of the increase in yield and improvement in quality*.

(117) A suitable committee should be appointed by the Provincial Governments concerned to examine the question of surplus workers in sugar mills and suggest ways and means of solving the problem of surplus labour.

(118) From the point of view of compensating Government for the loss of customs revenue on imported sugar, the present excise duty levied on sugar cannot be regarded as excessive.

(119) Consistently with the probable requirements of cane development, the cane cess can be reduced from Re. 0-3-0 to Re. 0-1-6 per maund and the Provincial Governments should effect such reduction as early as possible.

(120) Considering all the factors explained in paragraph 94, it can reasonably be expected that, apart from any marked rise in the general price level of the country, the fair ex-factory price of sugar can be brought down to Rs. 18-0-0 or Rs. 19-0-0 per maund in a period of four or five years.

### **Condition of Workers**

(121) The problems of labour in the sugar industry are somewhat peculiar in the following respects :

- (i) the workers of the industry were not until recently affected by the trade union movements,
- (ii) due to the seasonal nature of the industry, workers can be employed only for the duration of the crushing season,
- (iii) majority of the workers, as a rule, have no regular and/or suitable employment during the off-season, and
- (iv) the workers have no guarantee that they would be re-employed at the commencement of the next crushing season.

(122) The Government of U.P. should examine the feasibility of further implementing the recommendations of the Nimbkar Committee at an early date.

(123) In view of the possibilities of employing the technical staff of the sugar industry in different ways throughout the year, we recommend that Government and factory owners should take steps to make the technical staff permanent as soon as possible.

(124) During the last decade, there has been a substantial improvement in the position of unskilled workmen in the sugar industry. The condition of the technical staff in the sugar factories has, however, not received sufficient attention. The recommendation in paragraph 98 to the effect that the technical staff of sugar factories should be employed for the whole year, will definitely help in attracting the best talents to the industry and thus ensure an improvement in its efficiency.

## Financial Condition of Sugar Mills

(125) There has been an enormous expansion in the paid-up capital of the majority of the sugar companies, which goes to show that the sugar industry has offered an attractive field of investment for capital.

(126) On the basis of the comparative figures of profits in the different Provinces, the sugar mills in Bombay come out first in respect of profits, followed by the Madras Mills, whereas the mills in U.P. and Bihar, where the sugar industry is largely concentrated, occupy the last two places. Judging by this and other comparative figures of profits as explained in paragraph 103 (b), it would appear that, other things being equal, Bombay and Madras would offer the best scope for the future expansion of the sugar industry.

(127) The shareholders of sugar mills have received satisfactory dividends during the last fifteen years. On the basis of dividends also the Bombay sugar mills come out first, followed by the Madras mills, whereas the mills in U.P. and Bihar occupy the last two places.

(128) The sugar mills in all the Provinces have set aside reasonable amounts for reserve funds.

(129) Although the sugar industry has been prosperous, its profits have been distinctly lower than those in the cotton textile, paper and iron and steel industries.

## Continuance or withdrawal of protection

(130) The surplus sugar available for India and all other countries outside the 'free market', will not be large, being of the order of 340,000 metric tons.

(131) Having regard to the country's balance of payments difficulties, we may reasonably assume that, though there is a possibility of imports being arranged for by Government, such imports are not likely to be larger than what will be needed to supplement the internal production and or to check any undue tendency of the sugar price to rise. On the basis of our estimates of demand and supply at the present time, the maximum import that may be permitted is not likely to exceed 1 lakh tons.

(132) On the basis of the figures, and in the light of our information about current world market conditions, we estimate that the c. i. f. price of imported sugar will be in the neighbourhood of Rs. 22-0-0 per maund.

(133) The difference between the present price of indigenous sugar (Rs. 28-8-0) and the estimated landed cost (Rs. 22-8-0) being Rs. 6 per maund, the present duty of Rs. 6 per maund would give adequate protection to the indigenous sugar industry, if such protection were needed. There is, however, no danger of any competition from low-priced imports of sugar on an appreciable scale for the next two or three years, because the surplus sugar available for the 'free market' is likely to continue to be small and, particularly because, in the context of the present balance of payments position of the country, Government are not likely to permit imports of large quantities of sugar. Further, according to our estimate, the fair ex-factory price of indigenous sugar (E-27) can be reduced to Rs. 24-12-0 per maund in 1950-51. We have felt that the continuance of protection for the last 18 years has produced an attitude of complacency on the part of the three parties, viz. Government, the industry and the cultivator, who are responsible for the efficiency of the indus-

try, and that consequently, they have not taken sufficient steps to improve the overall efficiency of the industry so as to bring down its cost of production. We, therefore, consider that this is the most suitable opportunity to withdraw the protection without any serious risk to the industry. We, accordingly, recommend that the protection to the sugar industry should not be continued beyond 31st March, 1950, Government being free thereafter to impose such revenue duty as they consider necessary.

(134) If there is a change in Governments policy regarding imports of sugar in the near future, giving rise to severe competition from foreign imports so as to jeopardise the position of the sugar industry, it will be open to the industry to approach Government for the restoration of protection. And we have no doubt that Government will institute an inquiry to review the position as expeditiously as possible and restore protection to the industry if it is found to be justified.

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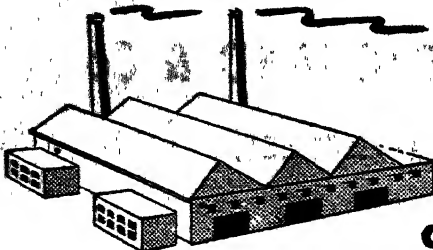


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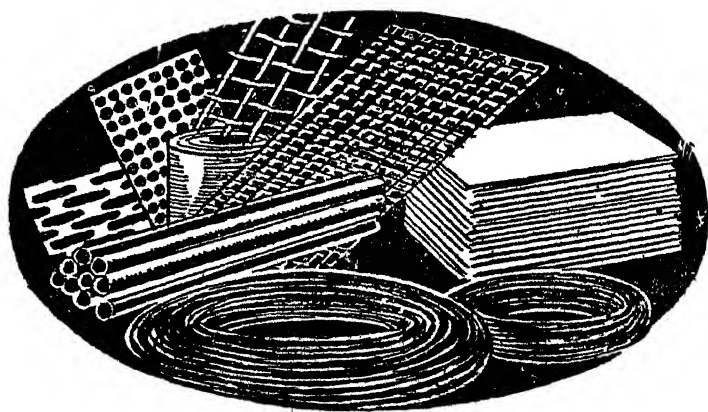
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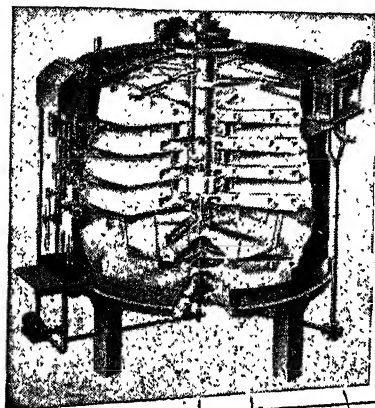
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## PREFACE

*This issue of the "Indian Sugar Manual" is the eighth since 1940. Due to circumstances beyond the control of the Sugar Technologists' Association of India, the issue for 1950 could not be brought out earlier. It has, therefore, been combined with this issue. As in the past the Manual gives the world sugar situation in Part I and the position of the Sugar Industry in India in Part II. In addition to the above, chapters on Gur and Khandsari industry and on the cost of manufacture of sugar have been introduced. The Statistical tables, more than a hundred in number, have been prepared afresh according to the new regulation of the various States since January, 1950.*

*The year 1950 has been one of momentous decisions in the annals of the Indian Sugar Industry. The Indian Tariff Board after thoroughly going into the various aspects of the industry recommended the withdrawal of protection which the sugar industry enjoyed since 1932. Although the protection has been withdrawn, there is happily, no fear of competition through imports. The bold sugar policy of the Government of India, framed in 1950-51 has given a fresh impetus to the sugar industry and let us hope that this opportunity will be fully utilised by the industry in consolidating its position.*

*It is hoped that this Manual would serve the needs of all concerned in the task of stabilising the industry in this country.*

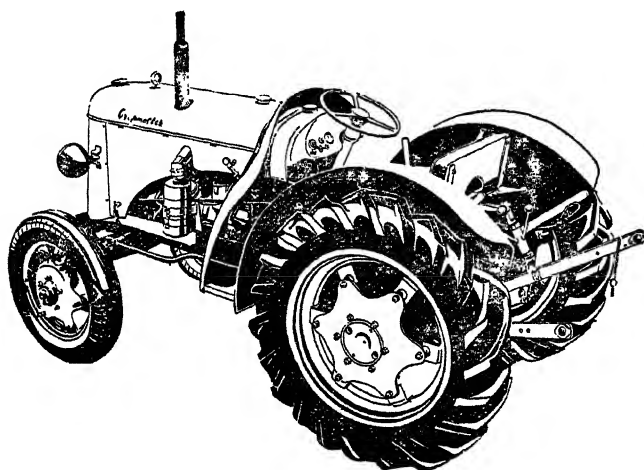
*The author of this Manual is Shri R. S. Agarwal, M.A., B.Sc., LL.B., of the Indian Institute of Sugar Technology, Kanpur, and the Association wishes to place on record its thanks to him.*

*Due acknowledgment is also made of the facilities given by the Director, Indian Institute of Sugar Technology and the Secretary, Indian Central Sugarcane Committee in this connection and of the various foreign journals and news agencies which were referred to by the author.*

Kanpur,  
Dated 24th March, 1952. }

N. C. VARMA,  
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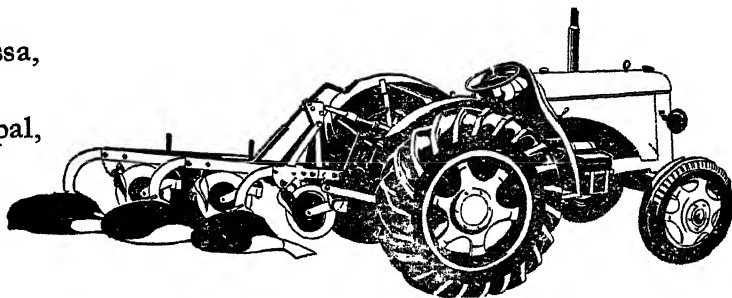
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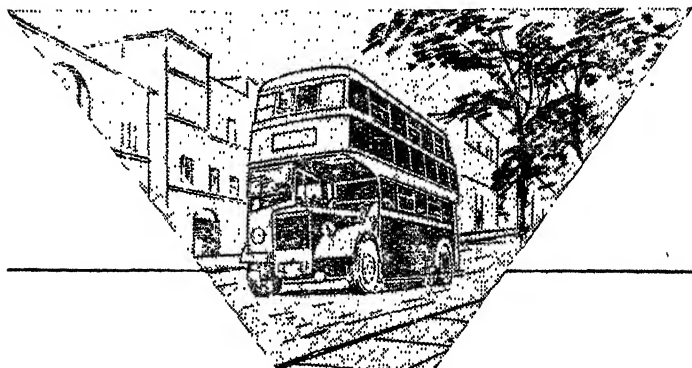
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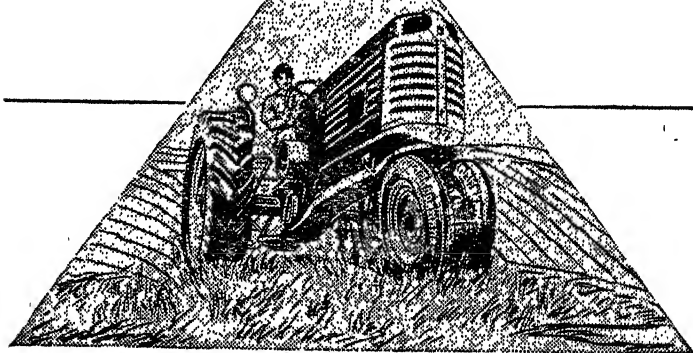
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## **Chapter I**

# **WORLD SUGAR SITUATION**

## **RISING WORLD PRODUCTION AND CONSUMPTION**

The Food and Agriculture Organization of the United Nations have issued a commodity Report on Sugar which reviews the outlook for production and consumption of sugar during the next few years. This document deserves wide attention throughout the sugar industry, since it reassembles in compact form the relevant data and draws broad conclusions from them.

Three important changes from the pre-war picture are noted. Firstly, in 1949/50 the world per capita production exceeded the pre-war level for the first time, averaging 13.6 Kg. (against 13.4 kg.) and in 1950-51 it will be substantially higher. "This increase is more significant than might appear at first sight. Post-war political and economic dislocations have made it impossible for many millions of human beings to benefit from the Increase in world production, with the result that the greater output has to find a market among a much smaller segment of the world population."

Secondly, recovery was unevenly distributed geographically. The share of the Western Hemisphere has been much larger than in pre-war years (46.3% as compared with 35.2% in 1934-38). On the other hand, the share of Asia is still much below pre-war as a result of economic, social and political turmoil. European sugar production, in contrast to most other major agricultural products, greatly exceeds the pre-war average output, even in the Eastern areas.

Thirdly, the rise in world sugar production, especially in importing countries and in areas in which consumption has always been low, appears to be part of a long-term trend which is likely to develop further during the current decade. "It is very possible that world sugar production will reach 38-40 million tons before many years." It is significant that present plans and programmes in the overwhelming majority of those countries in which production has already increased call for yet further production increases during the next few years.

A most interesting 8-page review of the planned expansion by countries is included. Warning is given that these plans must be treated with reserve, as the problems involved in such development are greater than is generally realized, and an alteration in the price structure or a spell of unfavourable seasons may result in the shelving of some of them. For these reasons it is not possible to estimate how much these programmes will add to world production in the short term. "The important fact is that at present not a single country intends to reduce the area devoted to sugar beets or to sugar cane: on the contrary, more and more countries are showing interest in effecting substantial production increases."

The emphasis on increasing production of sugar may be traced to a variety of factors, including a price level sufficient to stimulate production in areas formerly requiring subsidies; difficulties with foreign currency; an increased interest in agriculture and food production generally; the rise in consumer demand resulting from significant rises in income; the economics of large-scale production in the sugar industry; and, of course, political and military considerations.

*Consumption*—One of the marked features of the past two years has been the increase in demand for sugar. Even in countries where the total consumption of sugar and sugar products has not greatly increased, the amount consumed in the form of refined as against low-grade sugars has risen. Consumption has, in general, declined slightly in countries with high pre-war usage, but has risen substantially in the overwhelming majority of countries in which, before the war, sugar was regarded as a luxury. Reasons for the decline in the first group are a decline in the national income in some war-devastated countries, foreign exchange difficulties, an increase in the consumption of more expensive foods in those countries with a higher standard of living, and political and economic dislocation of population increase.

The increased usage in the second group derives from a rise in consumer expendable income and seems to be closely related to progress in industrialization and urbanization. Included in this group are almost all countries of Latin America and Africa, as well as some of those countries of Asia which before the war had the lowest off-take of sugar.

However, the per capita consumption of the great majority of the human race is still below 20 kg. a year: indeed, below 10 kg. Less than 260 million people enjoy at present a consumption of 40 kg. and over. "To bring the minimum per capita consumption upto 20 kg. a year it would require approximately 17 million tons of sugar more than was produced and consumed in 1949-50.

Table No. 1

*World Sugar Statistics.*

(metric tons, raw value: September-August)

					1949-50	1948-49	1947-48
Production ...	...	...	...	...	31,861,265	30,864,616	28,050,402
Imports ...	...	...	...	...	13,586,179	12,404,588	11,789,572
Initial stocks 9/1	...	...	...	...	6,958,239	6,616,973	7,289,017
Total ...					52,405,683	49,886,177	47,128,991
Final stocks 8/31	...	...	...	...	6,550,710	6,958,239	6,616,973
Deliveries ...	...	...	...	...	45,854,973	42,927,938	40,512,018
Exports ...	...	...	...	...	13,546,301	12,582,866	12,271,152
Consumption	...	...	...	...	32,308,672	30,345,072	28,240,866



### World Sugar Production

The World Sugar production for the last five years and also for a few pre-war years both from cane and beet as estimated by M/s F. O. Licht are given in Table No. 2.

Table No. 2

(In thousand tons)

Year	Cane Sugar	Beet Sugar	Total	Cane% Total
1932-33	14,742	7,994	22,736	64.8
1938-39	17,910	10,442	28,352	63.2
1939-40	18,731	11,479	30,209	62.0
1946-47	18,055	7,617	25,673	70.3
1947-48	20,009	8,041	28,050	71.3
1948-49	20,649	10,215	30,865	66.9
1949-50	21,121	10,740	31,861	66.3
1950-51	22,261	12,887	35,148	63.3

In 1950-51 World Sugar Production will probably reach 35,148,332 metric tons, raw value as against 31,861,265 tons in 1949-50 and 28,351,944 tons in 1938-39. This means an increase of 10.3% over the previous year. The normal pre-war output was about 30 million tons.

Tables Nos. 3 and 4 give the production separately for cane and beet sugars continentwise and countrywise

Table No. 3

F. O. Licht's Estimate—1000 metric tons.

Continent	Year	1950-51	1949-50	1948-49	1937-38
<i>Cane Sugar—</i>					
North and Central America	...	10,581	10,171	9,686	6,682
S. America	...	3,321	3,142	3,229	2,067
Africa	...	1,573	1,539	1,498	1,216
Asia	...	5,624	5,163	5,102	7,255
Australia	...	1,135	1,081	1,113	958
Europe	...	27	26	21	12
Total Cane Sugar	...	22,261	21,121	20,649	18,191

Continent	Year			1950-51	1949-50	1948-49	1937-38	
<i>Beet Sugar—</i>								
Europe	...	...	...	10,857	9,061	8,881	9,688	
United States	...	...	...	1,814	1,513	1,190	1,246	
Canada	...	...	...	132	113	90	61	
Others	...	...	...	84	53	54	85	
Total Beet Sugar				...	12,887	10,740	10,215	11,080
World Sugar Production				...	35,148	31,861	30,865	29,271

Table No. 4  
*Sugar Crops of the World*  
(in Metric tons)

Country				1950-51	1949-50	1948-49	1937-38
<i>Cane Sugar Production—</i>							
Cuba ... ..	...	...	...	5,667,000	5,557,504	5,227,974	3,039,680
Louisiana ... ..	...	...	...	400,000	377,206	360,402	362,959
Puerto Rico ... ..	...	...	...	1,165,000	1,173,856	1,159,516	977,111
Hawaii ... ..	...	...	...	980,000	883,920	852,729	838,217
Br. West Indies ... ..	...	...	...	717,000	671,643	623,376	417,507
Dominican Republic ... ..	...	...	...	515,000	475,331	476,484	428,516
Mexico ... ..	...	...	...	700,000	625,000	643,341	303,284
Argentina ... ..	...	...	...	612,000	548,800	565,500	412,391
Brazil ... ..	...	...	...	1,746,000	1,615,332	1,734,749	999,454
Peru* ... ..	...	...	...	455,000	485,000	488,720	342,595
Br. Guinea ... ..	...	...	...	204,000	199,343	185,582	199,646
Mauritius ... ..	...	...	...	445,000	415,969	409,764	313,816
South Africa ... ..	...	...	...	570,000	584,869	569,955	460,121
Java ... ..	...	...	...	600,000	275,000	223,517	1,398,927
India							
(a) Refined ... ..	...	...	...	1,415,000	1,134,900	1,254,873	1,211,185
(b) Gur ... ..	...	...	...	1,418,000	1,674,227	1,480,820	1,708,912
Philippines ... ..	...	...	...	915,000	616,892	657,716	960,524
Formosa ... ..	...	...	...	400,000	615,378	634,492	...
China ... ..	...	...	...	390,000	390,000	390,000	730,000
Australia ... ..	...	...	...	1,030,000	951,466	973,428	816,178

Country	1950-51	1949-50	1948-49	1937-38
<i>Beet Sugar Production—</i>				
Germany ... ..	1,750,000	1,180,088	1,298,243	2,226,675
Czechoslovakia ... ..	775,000	623,940	634,538	741,187
France ... ..	1,350,000	880,748	960,156	969,296
Poland ... ..	925,000	845,000	693,751	562,052
Italy ... ..	620,000	501,600	454,444	347,111
U. K. ... ..	691,850	515,790	631,800	425,982
Russia ... ..	2,150,000	2,100,000	1,980,000	2,581,915

The increase in world sugar production was mainly due to increase in beet sugar production which was 20 per cent higher than in the previous year of 1949-50. In case of Cane sugar, the increase was only 5.4%.

This shows, on the one hand the important part which is played, even now, after world War II—by the beet sugar industry, and on the other hand, the strong endeavours for reconstruction of the European nations which know the value of the sugar beet and of the home beet sugar industry more than ever, having passed two world wars and knowing the difficulties of shortage of foreign currency.

### EUROPE

The European beet sugar industry had a very favourable year in 1950. The sugar beet area of Europe without Russia increased from 2,103,200 hectares in 1949 to 2,261,053 hectares in 1950. The yield was also higher resulting in greater sugar production although the sugar content was about the same.

It is quite natural that the increase of 1,746,000 tons of sugar meant an improvement of sugar supply in comparison to last year, lessening the dependence on overseas imports considerably, even if a great part of the increased production is absorbed by the growing consumption.

### NORTH AND CENTRAL AMERICA

There was a great increase in the beet sugar production of the U. S. A., but there was no special differences in Louisiana and Florida. In Puerto Rico it is expected that the 1950-51 production will reach that of 1949-50, while an increase of about 100,000 tons is expected in respect of Hawaii. The 1950-51 production of the Philippines is estimated at 915,000 tons against 616,892 tons.

The Cuban production for 1950-51 is estimated at 5,667,000 metric tons, raw value. The increase in sugar production of the British West Indies will continue in 1950-51 also being of importance for the sugar supply of Great Britain and Canada. The increase of the Mexican production is continuing. With a production of 700,000 tons this country is now becoming one of the important sugar producers of Central America.

## SOUTH AMERICA

In South America, Brazil takes by far the first place among the sugar producing countries. The figures of production comprise the production of modern factories as well as of native plants. In contrast to the previous year, Brazil exported only very small quantities in 1949-50. Argentine, which exported greater quantities in former years, has been forced during recent years to import small quantities of sugar. The only great sugar exporting country of South America, Peru, expects a smaller production which may cause some decrease of exports of that country. The endeavours of Chile to build up a beet sugar industry have not yet been successful. Therefore, Chile will also be obliged to import great sugar quantities from Peru and Cuba. Columbia and British Guinea expect a production in 1950-51 which will be similar to that of last year.

## AFRICA

In 1950-51, a little increase of production is expected on the African continent in comparison to last year. This is true of Egypt and Mauritius. The total production of the African continent during 1950-51 is estimated at 1,573,000 tons only against 1,538,603 tons in 1949-50.

## ASIA

As to Asia, the presumable increase of production in Java and the Philippines may be pointed out. The 1950-51 production in Java is expected to reach 600,000 metric tons against 275,000 tons last year and 1,398,927 tons during the campaign year 1937-38. A production of 600,000 tons would enable Java to take up her sugar exports in a small scale again although they would not play a decisive part in the sphere of world trade. The increase of Philippine production for about 300,000 tons mainly affects the sale prospects for Cuban sugar in the United States, as an increase of the Philippine sugar production will result in rising exports to U. S. A. An increase in the production of white sugar in India during 1950-51 has been realised. This seems to be very necessary, taking into consideration the shortage of sugar during last years. As to Formosa, it is expected that the production will dwindle to 400,000 tons during 1950-51 against 615,378 tons last year owing to dreadful political conditions and the inner economic difficulties. This fact will show its effect also in the sphere of world trade as Formosa has always provided great sugar quantities to the World market. On the whole, the sugar production of Asia seems to recover slowly. But it is still far from the standard of pre-war production. This makes clear that reconstruction in Asia is much slower than in Europe where the 1950-51 production is considerably higher than pre-war production. The main cause, especially in Java and Formosa, may be found in the lacking political quietness and peace.

## AUSTRALIA

In Australia, the 1950-51 production is expected to show a further increase while it will probably decrease in the Fiji Islands.

## World Sugar Consumption

What is the meaning of sugar consumption as to sugar statistics? In those countries in which sugar taxes are levied, sugar is said to be statistically consumed when the taxes are paid. This is the "official" consumption. There is, however, besides the "calculated" consumption. This is calculated by adding production, imports and initial stocks and deducting from this sum final stocks and exports. The result is the "calculated" consumption. The "official" and the "calculated" consumption do not agree owing to various reasons, but they have at least to approach similar sums if statistics are elaborated thoroughly. The consumption figures provided here are "calculated" consumption figures which, theoretically, have always to be higher than the official consumption, as they also comprise those quantities which are lost by fire, overflow, ship accidents, etc., registering all sugar quantities, which, without being exported or at hand as final stocks, have sometimes been produced, imported or registered as initial stocks.

Official consumption statistics are lacking in many countries. Consequently consumption has to be calculated without possibilities of comparison. In those countries in which the sugar want is only covered by imports, the imports mostly correspond to the consumption and are treated accordingly by the sugar statistics if it is not known that considerable quantities of those imports are used for the increase of stocks.

According to calculations, 32,308,672 metric tons, raw value, have been consumed by the whole world during the campaign year 1949-50 against 30,345,072 tons and 28,240,866 tons respectively during the two preceding years. This means that the 1949-50 consumption exceeds that of the campaign year 1948-49 for 1,963,600 tons=6.47 per cent and that of the campaign year 1947-48 for 4,067,806 tons=14.4 per cent. Such great increases of consumption are quite unusual under normal conditions. They are due to the following reasons: (1) There was a great demand during the years of war. (2) A strong increase of sugar production, like that of the past years, is always followed by a considerable increase of sugar consumption, as numerous countries—as for instance India—may consume only those sugar quantities which are produced at home because the shortage of foreign exchange makes great sugar imports impossible. (3) The growing population of the world favoured sugar consumption and (4) The sugar consumption within the tropical and sub-tropical countries of Africa and South America has unusually risen owing to the continuous economic development during the last 10 years.

In Europe without Russia, 9,634,015 tons were consumed in 1949-50 according to our calculations, against 8,767,149 tons and 7,150,343 tons respectively during the two preceding years. This means an increase of 866,866 tons=9.89 per cent with respect to the campaign year of 1948-49 and an increase of 2,477,672 tons=34.62 per cent with respect to the campaign year of 1947-48. This makes clear that the increase of the European consumption during those years—expressed in percentage—is considerably higher than that of world consumption. This is—beside minor reasons—mainly due to the strong post-war demand of those countries which had to suffer from the consequences of war. This may be stated by the example of

Western Germany, where sugar consumption nearly doubled from 1947-48 to 1949-50. Consumption has also unusually risen in France, Holland, Poland and Italy. Normal conditions provided, this rising tendency will also continue during the coming years, as sugar is still rationed in some European countries. Moreover, it can be stated that sugar is bought more and more, being a valuable foodstuff and rather cheap in comparison to other articles.

In North and Central America, considerable increase of consumption is reported. The consumption of the United States during 1949-50 rose by about 606,494 tons=8.89 percent respectively 485,210 tons=6.99 per cent against the two preceding years. The increase of last year is firstly due to the Korea crisis and the fear that sugar would become short and expensive in case of an extension of the conflict. The shortage could, however, be surmounted quickly. Higher prices became, however, effective at last and continued owing to the political situation. A favourable increase of the sugar consumption could also be stated in the remaining North and Central American districts during recent years, although it was not done as quickly as in Europe and the United States.

As to South America, sugar consumption has been rather stationary during the last years. There are slight increases in Brazil, Peru and Chile which are opposed by a decrease in Argentina which may be the result of a temporary shortage of sugar.

On the African Continent too, the sugar consumption showed only little progress in 1949-50 after the stormy development of the preceding years.

As to Asia, the consumption of sugar is mainly directed by the Indian consumption. As "gur" in India is registered with half of its weight only, even in respect of consumption, the quantity consumed depends mainly on the height of the respective gur production. The Indian production of refined sugar was not able to meet all demand during the past years, and imports were hindered by the lack of foreign exchange. It is, therefore, necessary to consider the Indian sugar consumption from this point of view. Indonesia and Japan have by far not yet been able to reach the consumption figures of pre-war times. In Java, the production has not been sufficient until now, and the loss of Formosa has a very unfavourable effect on the Japanese consumption. With a view to Japan's difficulties with respect to foreign currencies, it may be feared that this country will have further troubles as to the sugar supply. On the other hand, there are still considerable possibilities for the sugar exporting countries, when Japan will sometimes be able to cover her sugar demand completely.

Within the Area of Oceania, Australia with an amount of 500,000 tons is the main sugar consumer. It represents, however, also the country with the highest per capita consumption. Taking into consideration this fact, in Australia like in New Zealand, consumption will have reached its maximum for the next time.

After the partly stormily rising tendency of the world sugar consumption, we expect, for 1950-51 a development which will still show an increase beyond the normal percentage without however reaching the abnormal progress of recent years. We have doubtlessly already reached a certain saturation and it would be wrong to expect a continuously strong upward tendency of the world sugar consumption. Moreover, it may not be overlooked that

the statistical increase contains partly quantities which were only transfer from visible to invisible stocks. Consequently, the world sugar situation shows many items of uncertainty with respect to sale as well as prices which will become only stronger in case of a further great increase of pacification of the political situation,

## WORLD SUGAR PRODUCTION AND WORLD SUGAR CONSUMPTION

(Metric tons, raw value)

1925-26 ...	...	...	...	...	...	...	23,758,502	23,207,874
1926-27 ...	...	...	...	...	...	...	23,211,177	23,412,482
1937-38 ...	...	...	...	...	...	...	29,270,707	28,093,846
1938-39 ...	...	...	...	...	...	...	28,351,944	29,004,290
1947-48 ...	...	...	...	...	...	...	28,050,402	28,240,866
1948-49 ...	...	...	...	...	...	...	30,864,616	30,345,072
1949-50 ...	...	...	...	...	...	...	31,861,265	32,308,672
1950-51 ...	...	...	...	...	...	...	35,148,332	...

This table proves that, with some fluctuations, the world sugar consumption has continuously risen since the campaign year of 1925-26. It reached 32,308,672 tons in 1949-50 and will be between 34.5 and 35 million tons in 1950-51. This makes clear that world sugar consumption increased for 9,100,798 tons=39.25 per cent during 25 years. Until the last year of 1950-51, this increase will probably reach 11,792,000 tons=50.8 per cent. The above given data show that the great consumption during the campaign year of 1950-51 represents by no means a normal development in many countries. Looking at the per capita consumption table, we will find out that there are many districts where sugar consumption is still undeveloped, a fact which will gradually be changed as we may learn from the strongly rising consumption within African, South American and Asiatic districts. Consequently, we cannot find a reason for a sudden stop of this ascending tendency in 1950-51. We think even that the contrary will be true. The continuous commercial and industrial development, the increase of capital and the rise of industrial and agricultural production will, also in future, result in a rising standard of living and, consequently, increase of consumption will, however, doubtlessly influence the free world sugar market, balancing the descending tendencies caused by extended production of some nations. It will be a long time until that day when the main import districts will be able to meet their demand by home-grown sugar, and it is rather dubious whether this will be the case at all. The present production capacity of the world sugar industry is almost saturated. Without numerous new sugar factories, it looks far more doubtful whether the free world sugar market will be able to meet the rising demand than that a continuous decrease of the free world sugar market will be the consequence of decreasing demand.

Table No. 5

*Countrywise Consumption Statistics.*

(Metric tons, raw value)

Countries				1949-50	1948-49	1947-48	1937-38
U. S. A.	...	...	...	7,430,777	6,824,283	6,945,567	5,578,928
Canada	...	...	...	704,667	632,126	650,962	512,177
Mexico	...	...	...	595,000	561,163	501,995	340,000
Argentina	...	...	...	545,900	586,000	609,100	404,100
Brazil	...	...	...	1,639,331	1,607,217	1,466,092	1,021,286
South Africa	...	...	...	552,834	530,520	518,705	270,219
India	...	...	...	2,833,127	3,001,700	2,954,782	3,020,415
Egypt	...	...	...	250,000	254,306	196,391	152,000
Java	...	...	...	210,000	134,532	135,819	321,097
Philippines]	...	...	...	196,000	190,000	150,000	75,000
Japan & Formosa	...	...	...	437,674	405,299	585,281	1,145,630
Iran	...	...	...	185,485	178,345	159,442	107,593
Australia	...	...	...	500,000	476,228	502,395	362,664
Germany	...	...	...	1,674,673	1,339,648	990,695	1,809,782
Czechoslovakia	...	...	...	390,000	378,505	307,909	411,348
France	...	...	...	1,125,000	1,032,137	761,087	1,041,992
Holland	...	...	...	488,506	444,184	326,311	350,269
Poland	...	...	...	540,000	494,178	389,616	452,282
Italy	...	...	...	583,600	570,166	305,293	395,852
U. K.	...	...	...	2,086,996	2,055,841	1,979,241	2,376,395
Russia	...	...	...	2,325,000	2,255,000	1,830,000	2,384,959
World Sugar Consumption				32,308,672	30,345,072	28,240,866	28,093,846



### Table No. 6

Countries						1949-50	1948-49	1937-38
Cuba	...	...	...	...	...	140	118	80
U. S. A.	...	...	...	...	...	106	105	95
Canada	...	...	...	...	...	112	101	101
Argentina	...	...	...	...	...	77	80	70
Brazil	...	...	...	...	...	71	70	52
Mexico	...	...	...	...	...	57	56	33
South Africa	...	...	...	...	...	95	99	61
Egypt	...	...	...	...	...	30	29	21
India	...	...	...	...	...	18	19	18
Indonesia	...	...	...	...	...	6	4	10
Japan	...	...	...	...	...	9	8	24
Iran	...	...	...	...	...	22	21	...
Australia	...	...	...	...	...	143	136	117
Newzealand	...	...	...	...	...	138	119	...
European Countries			...	...	...	(See Table No. 27)		

Table No. 7  
*World Stocks of Sugar*  
(Metric tons)

[illegible]

Table No. 8

*Estimate of World Imports.*

(Metric tons, raw value—September-August)

Countries				1949-50	1948-49	1947-48	1937-38
West Germany	...	...	...	679,364	306,614	505,056	18,556
France	...	...	...	428,984	406,465	106,738	347,223
Holland	...	...	...	317,492	238,960	195,742	160,134
Switzerland	...	...	...	243,632	140,877	218,224	165,840
Great Britain	...	...	...	2,322,462	1,941,530	1,803,781	2,436,388
U. S. S. R.	...	...	...	400,000	500,000	260,000	30,463
Total Europe				5,171,820	4,355,917	3,870,133	3,897,024
U. S. A.	...	...	...	5,360,530	5,065,601	4,883,368	4,292,564
Canada	...	...	...	552,867	574,566	530,100	466,728
Total America				5,940,397	5,678,167	5,452,468	4,795,292
Chile	...	...	...	190,000	182,264	165,779	124,391
Total S. America				356,432	395,959	338,779	224,342
French Morocco	...	...	...	339,000	320,000	259,000	293,108
Total Africa				658,628	534,116	482,453	541,918
Iran	...	...	...	150,000	154,336	101,820	97,851
Ceylon	...	...	...	120,000	134,000	110,000	83,606
Japan	...	...	...	303,902	299,875	507,311	116,329
Total Asia				1,339,902	1,337,429	1,544,131	1,243,634
Newzealand	...	...	...	115,000	100,000	98,608	98,965
Total Oceania				119,000	103,000	101,608	103,965
World Total				13,586,179	12,404,588	11,789,572	10,806,175

Table No. 9

*Estimate of World Exports.*

(Metric tons, raw value—September-August)

Countries				1949-50	1948-49	1947-48	1937-38
<i>Europe—</i>							
E. Germany	...	...	...	295,000	300,000	131,667	16,752
Czechoslovakia	...	...	...	250,000	229,625	97,800	320,023
Holland	...	...	...	203,109	77,146	99,894	76,172
Poland	...	...	...	300,000	200,000	160,756	87,266
U. K.	...	...	...	801,803	513,424	590,543	418,371
Total Europe				2,502,725	1,821,251	1,386,980	1,434,572
<i>North and Central America—</i>							
Puerto Rico	...	...	...	1,226,085	1,003,233	834,765	718,213
Hawaii	...	...	...	1,086,585	528,218	734,214	819,658
Cuba	...	...	...	4,812,011	4,996,365	6,189,176	2,575,936
British West Indies	...	...	...	577,758	516,179	388,051	386,928
Total North and Central America				8,339,767	7,825,647	8,821,327	5,082,735
<i>South America—</i>							
Peru	...	...	...	302,830	312,402	321,303	269,914
Total South America				517,028	662,247	722,794	479,821
<i>Afrika—</i>							
Mauritius	...	...	...	398,000	386,802	340,213	277,554
Total Africa				664,101	631,950	586,727	780,386
<i>Asia—</i>							
Philippine	...	...	...	420,892	488,716	191,964	897,098
Formosa	...	...	...	514,000	500,000	203,000	280,626
Total Asia				938,392	1,033,526	466,238	2,518,623
<i>Oceania—</i>							
Australia	...	...	...	465,000	484,610	142,887	406,469
Total Oceania				584,288	608,245	287,086	549,937
World Total				13,546,301	12,582,866	12,271,152	10,846,074

## IMPORT DUTIES, SUBSIDIES AND EXCISE DUTIES, ETC., IN SUGAR PRODUCING COUNTRIES

### AUSTRIA

*Duties, etc., as at 30th March, 1950.*

*Import Duties:—*

- (a) Sugar candy—57.75 schillings per 100 kg.
- (b) Other beet and cane sugar—33.00 schillings per 100 kg.

There may be a 3% ad valorem tax.

*Prices, Subsidies, Etc.—*

The Austrian Council of Ministers fixed the sugar beet price for 1948-49 and 1949-50 at 21 and 20 schillings per 100 kg. respectively. Sugar production has had to be subsidised, e.g., the "Prague Sugar News," June, 1949, stated that for the 1948-49 season the Government had to grant 23 to 25 million schillings to the sugar factories to compensate them for the losses incurred by working to about only one-third of their capacity. Assistance is also necessary because of the Government's measures to keep down the price of sugar and raise wages.

### BELGIUM AND LUXEMBURG

(Tariffs have been unified with those of the Netherlands)

*Duties, etc., as at 30th March, 1950.*

*Import Duties:—*

						Francs per 100 Kg.
(a) Sugar for refining	...	...	...	...	...	250
(b) Other sugar	...	...	...	...	...	300

There is a *turnover tax* of 3% of the duty paid value and a "taxe forfaitaire" of 9%.

Excise duty is 60 frs. a 100 Kg.

*Subsidies—*

In 1947 it was stated that there were no subsidies on the production of sugar in Belgium.

There is no information regarding subsidies to consumers.

*Prices:—*

There is no detailed information of the price-fixing machinery for sugar beet. From the trade press it would appear that the price of beets are fixed by negotiation between representative of the planters and of the factories and, in case these cannot agree, by the Sugar Commission, which is presumably an official body.

The actual arrangement for 1949-50 are rather complicated, the price for beet depending on the total quantity of sugar produced, the price of sugar and the price of molasses.

Sugar prices were decontrolled from 30th November, 1948.

## NETHERLANDS

(Tariffs have been unified with those of Belgium and Luxemburg)

*Duties, etc., as at 30th March, 1950.*

*Import duties:—*

*Florins per 100 Kg.*

(a) Sugar for refining	...	...	...	...	...	...	19
(b) Other sugars	...	...	...	...	...	...	22.50

Also a turnover tax of 3% of the duty paid value and a "taxe forfaitaire" of 9%.

*Excise duties:—*

*Florins per 100 Kg.*

(a) Refined load and lump sugar	...	...	...	...	...	...	22.50
(b) Candy	...	...	...	...	...	...	23.75
(c) Raw 98% or over	...	...	...	...	...	...	22.00
(d) Raw below 98%, based on % content decreasing by 0.22½ fl. per 1% to a minimum of	...	...	...	...	...	...	15.00

*Subsidies and Prices:—*

In 1947 it was stated that a direct subsidy was made to sugar factories, enabling them to pay to the farmers sugar beet prices which were guaranteed by the Government.

## NORWAY

*Duties, etc., as at 30th March, 1950.*

*Import duties:—*

Sugar of all kinds ... 40 øre a Kg.

There is also a Sales tax of 6½% on the net retail selling price. There is no domestic beet sugar industry.

## ICELAND

*Duties, etc., as at 30th March, 1950.*

*Import duties:—*

All types of sugar ... 60 øre a Kg.  
16½% of c.i.f. value

There is also a Sales tax of 6% of the c.i.f. value and a tax of 2% on the retail price. There is no domestic beet sugar industry.

## PORTUGAL

*Duties, etc., as at 30th March, 1950.*

*Import duties:—*

							<i>Maximum</i>	<i>Minimum</i>
							(Gold escudos per Kg.)	
All Kinds of sugar	...	...	...	...	...	...	0.12	0.054

The duty is payable in paper escudos at the rate of 1 gold escudo=24.45 paper escudos. There is a 60% sur-tax.

There is a reduction of 50% of the import duty payable on sugar imported from the Portuguese colonies up to the amount of their import quota.

There is no domestic beet sugar industry.

## GREECE

*Duties, etc., as at 30th March, 1950.*

*Import duties:—*

All cane and beet sugars—40 metallic drachmae per 100 Kg.

(1 metallic drachma=4,950 paper drachmae)

There is also a *sur-tax* of 75% of the duty and a *turnover tax* of 6% of the gross estimated retail selling price.

There is no domestic beet sugar industry.

## SWEDEN

*Duties, etc., as at 30th March, 1950.*

*Import duties:—*

*Kr. per 100 Kg.*

(a) Sugar polarising not more than 98°	...	...	...	...	7
(b) Sugar polarising more than 98°	...	...	...	...	10

There is a no *surtax* or *sales tax*.

As far as is known, there is no *excise duty*.

*Subsidies, Prices, etc.:—*

There is no information except that the Swedish Government through the Swedish Sugar Company of Malmo, controls the whole sugar industry and makes contracts with beet growers to take their product at agreed prices.

## DENMARK

*Duties, etc., as at 30th March, 1950.*

*Import duties:—*

*øre. per Kg*

(a) Candy, refined sugar in lumps, loaves, etc., polarising over 98°	...	...	15
(b) Powdered cane and beet sugar for the use of the refineries, over 98°	...	...	10
(c) Powdered sugar polarising over 86° but not more than 98° (not for refining)	...	...	11.5
(d) Ditto for refineries when not over 96°	...	...	5.9
(e) Ditto for refineries when over 96°	...	...	6.5
(f) Other powdered sugar 86° and under	...	...	9

*Turnover tax*—none.

*Excise tax*—None.

*Prices, Subsidies, etc.:—*

For the 1949-50 the basic price of beet was fixed at Kr. 5.96 per 100 Kg. including "Tantieme" of 30 øre per 100 Kg. The grower will be compensated for any increase in the cost of labour and will be paid a premium of 50 øre if the total area contracted exceeds 44,000 ha. For beets delivered after the 15th November, and 15th December, the additional payment is 18 and 24 øre per 10 Kg. respectively.

With regard to the sugar manufacturing industry, the Government makes up the difference between the price of sugar and its cost of production.

## FRANCE

*Duties, etc., as at 30th March, 1950.*

*Import duty* is 130% ad valorem, but is at present suspended.

*Excise duty*—None.

There is a *transaction tax* of 1%.

*Subsidies* :—

In 1947 it was stated that there were no subsidies on sugar production. It is not known whether consumption is subsidised.

*Prices* :—

The Government fixes the price both of beet and sugar.

For the 1949-50 season the price of beet was fixed at 4,500 francs per ton 8°5 density. To the prices established according to density must be added 535 francs for the Agricultural solidarity tax, etc.

## IRISH REPUBLIC

There are no *import duties* or *excise duties* on sugar.

*Subsidies*—No information available.

*Prices*—The Price of beet appears to be fixed each season, but there is no information about the price-fixing machinery.

## ITALY

*Duties, etc.*—The following tariff was in force on 30th March, 1950, but a revised one was being drafted and was likely to come into force before June, 1950.

*Import duties* :—

*Lira per*  
100 Kg.

(a) 1st Class (Sugar which, when refined, yields more than 94% of refined sugar) ...	165.15
(b) 2nd Class (Other sugar) ... ..	110.10

*Manufacturing Tax* :—

(a) 1st Class ... ..	9,200
(b) 2nd Class ... ..	8,835

*Licence Tax*—10% of c.i.f. Indian port value.

*Trading Tax*—2% of gross landed value. ...

*Subsidies*—No information available. ...

*Prices*—The price of beet is fixed through negotiations between growers and sugar factories.

The price of sugar appears to be controlled by an Interministerial Price Committee.

## SWITZERLAND

*Duties, etc., as at 30th March, 1950.*

*Import Duties:-*

*Sw. Francs per 100 Kg.*

(a) Raw Sugar (for refining in Aarberg).	...	...	...	18
(b) Crystallised sugar, not further worked ...	...	...	...	22
(c) Crushed sugar ... ..	...	...	...	25
(d) Any other sugar (loaves, slabs, powdered, etc.)	...	...	...	27

*Sales tax*—None.

*Excise duty*—None.

*Subsidies, Prices, etc.*—No information available. The domestic sugar industry produces only 20/30,000 tons of the country's total requirements of nearly 200,000 tons. The one factory at Aarberg imports up to 36,000 tons of raw sugar for refining during the off season.

## TURKEY

*Duties, etc., as at 30th March, 1950.*

*Import duties*

*£T per 100 Kg. gross*

(a) Raw sugar ... ..	...	...	...	...	...	46.20
(b) Refined sugar ... ..	...	...	...	...	...	15.00 (Geneva Convention rate)

*Municipal Tax*—15% of Customs duty.

*Transaction Tax*—Nil.

*Excise Duties*—Lumps—66.38 piastres a Kg.

Powder—49.38 piastres a Kg.

*Subsidies, Prices etc.*—Sugar production and distribution are entirely regulated by the Turkish Government, which is the owner of the sugar factories.

In the past, beet growers have been given assistance in various forms such as advances, fixed minimum prices, free supply of seeds, fertilisers and insecticides, etc., but there is no information for the last three years.

## UNITED KINGDOM

*Duties, etc., as at 30th March, 1950.*

<i>Per Cwt.</i>	<i>Import duties.</i>							
	<i>Full</i>		<i>General</i>		<i>Preferential</i>		<i>Excise</i>	
	s.	d.	s.	d.	s.	d.	s.	d.
Sugar of a polarisation exceeding—								
99° ... ..	...	11 8	5	10	2	4.7	4	7
98° but not exceeding 99° ...	...	11 8	4	9.2	1	6.3	3	7.1
97° but not exceeding 98° ...	...	8 7	4	7.7	1	5.8	3	6
96° but not exceeding 97° ...	...	8 4.3	4	6.3	1	5.3	3	4.9
95° but not exceeding 96° ...	...	8 1.6	4	4.8	1	4.8	3	3.8



*Subsidies*—There is no direct subsidy to beet growers, but the Government fixes the price of beet at a level which is estimated to recuperate the growers. The basic price for the 1949-50 season was 10s. 1 d. a ton.

The British Sugar Corporation (which owns all the beet sugar factories), receives, a direct subsidy sufficient to cover costs and pay a moderate dividend to its shareholders. This subsidy called a "deficiency payment" varies greatly from year to year, e.g., in the last seasons, it was :—

1947-48—£ 569,000

1948-49—£ 3,441,756

The sugar consumer also receives a subsidy since the Government fixes sugar prices below the level they would find if left unregulated, the difference being paid out of the Exchequer. This applies principally to the retail price of sugar bought over the counter, which has been pegged at 5d. a lb. (granulated) since November, 1947. The cost of consumer subsidies on sugar during the last two financial years ending 5th April has been :—

1947-48—£ 29.8 millions.

1948-49—£ 23.2 millions.

*Cost of production of sugar*—The following extract from a speech of the Chairman of the British Sugar Corporation concerning the 1948-49 season may be of interest :—

"The total cost (after deducting income received from by-products) of producing white sugar in bond was 4.94 d. per pound, and the price at which the Corporation's white sugar in bond was purchased by the Government was 4.28 d. per pound."

### GERMANY (TRIZONIA)

*Duties, etc., as at 30th March, 1950.*

(Present tariffs are the same as pre-war ones)

<i>Import Duties:-</i>					<i>D. Marks per 100 Kg.</i>	
(a) Sugar for consumption	...	...	...	...	...	32
(b) Other solid or liquid sugar of all kinds	...	...	...	...	...	27

*Turnover tax*—3% ad valorem.

*Consumption tax*—A report from the German sugar industry organ, dated 17th December, 1949, stated that the Government had reduced the sugar tax from DM. 40 to DM. 30.50.

*Subsidies, Prices, etc.*—No information available.

### MEETINGS OF THE INTERNATIONAL SUGAR COUNCIL

#### 1950 Meetings

A session of the International Sugar Council was held in London on the 30th June, 1950. The meeting was attended by representatives of 19 Governments, by observers from 8 other Govts. and by an observer from the FAO.

The principal item on the Agenda of the Council was a Report from the Special Committee set up on 24th August, 1948 to study the sugar situation as it relates to the need or desirability for negotiating a new Agreement and to report to the Council its findings and recommendations as to the possible bases for a new Agreement in the future.

It adopted a report from its Special Committee which considered that the statistical position indicated that there might be sugar surpluses in the future and that a proper International Agreement should therefore be ready before any emergency arises. The Special Committee was to meet again on 20th July, 1950. The Council also decided to recommend prolonging the agreement for one year more ending the 31st August, 1951.

In order to determine the consensus of opinion as to the possibility of negotiating a new International Sugar Agreement in the near future, the Special Committee studied the following points:—

- (1) The regulation of exports to the free market by means of export quotas or export factors;
- (2) Stabilisation of sugar prices in the world market within a zone with a minimum and a maximum;
- (3) A solution of the problems of currency and dollar availability as far as sugar is concerned;
- (4) Limitation by importing countries of the expansion of their domestic sugar industry;
- (5) Facilitation of the consumption and use of sugar.
- (6) The treatment of non-signatory countries.

The Council forwarded its report to member Governments.

The Special Committee considered that the conclusions reached were sufficiently important to justify continuing its work and a further meeting of the Committee was arranged to be followed by a resumption of the Council meeting.

In recommending the new protocol extending the present agreement to August 31, 1951, the Council suggested that provision be made that if the revised agreement should come into force before that date, the protocol would thereupon terminate.

The Statistical Committee estimated that for the crop year ending August 31, 1950, world sugar supplies for the free market will amount to 5,090,000 metric tons, raw value, to meet estimated requirements of 4,600,000 tons. Figures for year ending December 31, 1950 showed estimated supplies for the free market of 5,333,000 tons to meet estimated requirements of 4,200,000 tons.

#### **Another Meeting Held On 20th July, 1950**

The Council duly met on 20th July, 1950, when it had before it a draft of a New International Sugar Agreement prepared by the Special Committee. After full discussion, it decided to ask all its Delegations and the Observers who had attended its meeting to submit the draft to their Governments and obtain their Governments' views not later than 16th October, 1950.

The Special Committee and the full Council was to meet again in the late autumn to prepare a more final draft and decide whether it should ask the Secretary-General of the United Nations to call an International Sugar Conference.

## 1951 MEETING

**New International Sugar Agreement Drafted**

A meeting of the International Sugar Council was held in London on the 26th June, 1951 attended by representatives of 19 Governments (South Africa, Australia, Belgium, Brazil, Cuba, Czechoslovakia, Dominican Republic, France, Haiti, Indonesia, Mexico, the Netherlands, Peru, the Philippines, Poland, Portugal, The United Kingdom, U. S. A. and Yugoslavia) and by observers from 8 other Governments (Canada, Columbia, Hungary, India, Israel, Italy, Pakistan and Syria).

The Council welcomed the Mexican delegate, whose Government has become a member since the last meeting of the Council.

The report of the Statistical Committee giving an estimate of the Statistical position for the year ending 31st August, 1951 was adopted by the Council. The totals were as under :—

	Sept.-Aug. 1950-51
Estimated supplies ... ..	4,399,000 tons
Estimated requirements ... ..	4,375,000 tons

The Council decided to recommend the Governments which signed the Protocol prolonging the present International Sugar Agreement to 31st August, 1951, to sign another Protocol prolonging the Agreement for a further year. The new Protocol will contain a provision that if a revised Agreement should come into force during the year, the Protocol would there-upon terminate.

The Council heard a report from the Chairman of its Special Committee on the progress made in drafting a new International Sugar Agreement.

The Council dealt with its budget for the coming year and other administrative matters.

### **THE SEVENTH INTERNATIONAL SUGAR CANE TECHNOLOGIST'S CONGRESS —SUCCESSFUL BRISBANE MEETING—**

The 7th conference of the International Sugar Cane Technologists was held at Brisbane in Queensland and lasted three weeks ending on September 27th, 1950. World Sugar Technologists usually meet every three years to pool their knowledge, but this was their first conference for twelve years. The delegates spent a fortnight touring the Sugar areas and visited 21 sugar mills, many cane fields and every important sugar experimental station.

After the opening ceremonies, the members assembled to hear Dr. P. Honig's remarkable presidential address, following which the sectional meetings, commenced. The papers contributed were of a particularly wide range of interest and the level of discussion was especially high. It centred mainly on how to increase sugar production without extending the size of plantations. In the words of the World President Dr. Honig, of the U. S. A. the world is too short of food now to spare any more land for sugar. The present world shortage must be overcome by growing more sugar on the same land.

Delegates from Java, South Africa, India and other countries, which once relied on manual labour alone, were eager for information about the Queensland sugar industry, which is one of the most highly mechanised in the world. Much of the work of the conference was done informally and delegates described the meeting as an interesting experiment in international understanding.

It adopted a report from its Special Committee which considered that the statistical position indicated that there might be sugar surpluses in the future and that a proper International Agreement should therefore be ready before any emergency arises. The Special Committee was to meet again on 20th July, 1950. The Council also decided to recommend prolonging the agreement for one year more ending the 31st August, 1951.

In order to determine the consensus of opinion as to the possibility of negotiating a new International Sugar Agreement in the near future, the Special Committee studied the following points:—

- (1) The regulation of exports to the free market by means of export quotas or export factors;
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The Council dealt with its budget for the coming year and other administrative matters.

### THE SEVENTH INTERNATIONAL SUGAR CANE TECHNOLOGIST'S CONGRESS —SUCCESSFUL BRISBANE MEETING—

The 7th conference of the International Sugar Cane Technologists was held at Brisbane in Queensland and lasted three weeks ending on September 27th, 1950. World Sugar Technologists usually meet every three years to pool their knowledge, but this was their first conference for twelve years. The delegates spent a fortnight touring the Sugar areas and visited 21 sugar mills, many cane fields and every important sugar experimental station.

After the opening ceremonies, the members assembled to hear Dr. P. Honig's remarkable presidential address, following which the sectional meetings, commenced. The papers contributed were of a particularly wide range of interest and the level of discussion was especially high. It centred mainly on how to increase sugar production without extending the size of plantations. In the words of the World President Dr. Honig, of the U. S. A. the world is too short of food now to spare any more land for sugar. The present world shortage must be overcome by growing more sugar on the same land.

Delegates from Java, South Africa, India and other countries, which once relied on manual labour alone, were eager for information about the Queensland sugar industry, which is one of the most highly mechanised in the world. Much of the work of the conference was done informally and delegates described the meeting as an interesting experiment in international understanding.

M/s S. N. Gundu Rao (Ravalgaon) and R. N. Agarwal (Harinagar) among others from India attended the conference.

The next Congress is planned to take place in the British West Indies in 1953. Past Congresses have taken place as follows; first in 1924 in Hawaii; second in 1927 in Cuba; third in 1929 in Java; fourth in Puerto Rico in 1932; fifth in 1935 in Queensland; sixth in 1938 in Louisiana.

### WORLD SHORTAGE OF SULPHUR

The prevailing world shortage of crude sulphur seems certain seriously to affect supplies of the refined grade to cane and beet sugar factories making white sugars. Not only this, but it will adversely influence prices and deliveries of fertilizers, insecticides, and many other chemicals as used in most industries today. A few words summarizing the position generally may not be out of place here.

Something like three quarters of the crude sulphur produced today is used for the manufacture of sulphuric acid, the demand for which has greatly expanded in both the U. S. A. and the U. K. These increases have been due mainly to the gradually increasing use of sulphuric acid in the production of chemicals generally and quite largely of fertilizers.

Of late years U. K. has been dependent for its supplies of crude sulphur (now approaching 500,000 tons annually) almost entirely on the U. S. A., which today produces over 90% of the world's requirements. But the sulphur position in the U. S. A. has rather abruptly changed of late, to such heights have her domestic demands mounted. This is the result, one need hardly add, largely of the re-armament programme.

In pre-war days U. K. imported most of her sulphur requirements from Sicily, but today this source of supplies has, to a large extent, fallen out of the picture, having been superseded very largely by the much cheaper product of the American mines. In fact, the Italian industry does not appear to have recovered from the effects of the last war, and in any case cannot be relied on to meet our present demands.

It follows, therefore, that with American sulphur imports restricted probably for some years to come, the U. K. must in future look to sulphur-containing products, as pyrites, spent oxide, zinc concentrates and gypsum, as raw materials for making her sulphuric acid. Of these possibilities, the most promising practically is the first mentioned, the main sources of supply of which are the Rio Tinto and Tharsis mines in Spain. Another possible raw material is gypsum, immense deposits of which occur in U. K. Capital costs, however, are high, which, perhaps, in the case of a process relying on a plentiful indigenous product, makes a strong case for Government financial support.

However, processes using such raw materials in the production of sulphuric acid are all definitely more expensive than is that using sulphur. There can be no doubt, therefore, that a further general rise in the prices of most important chemical products is before us. This largely relates to many fertilizers, and particularly of course to super phosphates, added to which continued difficulties in obtaining such supplies are unfortunately likely to be experienced for a number of years yet.

## Chapter II

### UNITED STATES OF AMERICA

According to the statistics published by the International Sugar Council, the production and disposal of sugar during the last six years (July-June) are as under:—

**Table No. 10**  
*Production, Imports, Exports, Consumption and Stocks*  
(In Metric Tons)

Period (July-June)	Opening Stock	Home Production			Imports	Exports	Available for Consumption	Closing Stock
		Beet Sugar	Cane Sugar	Total				
1943-44	1,341,608	905,000	412,000	1,317,000	4,956,139	412,104	6,045,734	1,168,198
1944-45	1,161,191	956,000	397,000	1,353,000	5,000,435	192,216	6,603,882	620,564
1945-46	620,564	1,159,000	431,000	1,590,000	3,751,110	270,837	4,917,091	866,498
1946-47	866,498	1,382,000	386,000	1,768,000	4,352,692	262,009	5,708,008	1,032,381
1947-48	1,032,381	1,665,000	3,41000	2,006,000	4,868,230	107,231	6,667,369	1,362,193
1948-49	1,362,193	1,243,000	433,000	1,676,000	5,058,940	50,539	6,971,202	1,135,578
1949-50	1,135,578	1,419,000	472,000	1,891,000	4,932,409	17,426	7,045,574	1,068,253

The sugar economy of the U. S. A. is based on the Sugar Act of 1948, which regulates the economic life of the country. One of the main points of this Act is the fixing of quotas for the sugar producing areas which are supplying the United States sugar market. The status of 1950 sugar quotas as on December 31, 1950 was as under.

**1950 SUGAR QUOTAS**  
(Short tons—raw value)

Area	1950 Quota	Quantity charged against quota
Domestic beet ...	1,899,000	1,726,424
Mainland Cane ...	546,861	514,008
Hawaii ...	1,150,594	1,144,933
Puerto Rico ...	1,60,545	1,052,705
Virgin Islands ...	11,000	10,694
Philippines ...	532,000	473,621
Cuba ...	3,430,580	3,265,088
Other Countries ...	69,420	61,503
Total ...	8,700,000	8,248,976

**1951 SUGAR QUOTA INCREASED**

The U. S. Department of Agriculture announced on June 8, 1951 that the supply of quota sugar to be available to meet requirements of domestic consumers in 1951 has been increased by 250,000 tons to a total of 8,250,000 tons, raw value. The quantity originally provided was 8,000,000 tons. Last year, total distribution amounted to 8,273,000 tons.

The action was taken because of recent sharp increases in sugar distribution. Under the action taken the quota for imports from Cuba has been increased from 2,902,600 to 3,149,200 short tons, raw value. The details of the quotas are shown in the following table :

**BASIC QUOTAS AND ADJUSTED QUOTAS 1951**

Production Area	Basic Quota (Short tons)	Proration of deficit in quota for Philippines	Adjusted Quota
Domestic beet sugar ...	1,800,000	...	1,800,000
Mainland cane sugar ...	500,000	...	500,000
Hawaii ...	1,052,000	...	1,052,000
Puerto Rico ...	510,000	...	510,000
Virgin Islands ...	6,000	...	6,000
Philippines ...	982,000	(200,000)	782,000
Cuba ...	2,959,200	190,000	3,149,200
Other countries ...	40,800	10,000	50,800
Total ...	8,250,000	...	8,250,000



Representation of various areas supplying the United States with its sugar requirements have been in Washington conferring with Government officials and legislatures in connection with the revision and extension of the Sugar Act of 1948. Reports stated that Puerto Rico, Peru and Dominican Republic are asking for larger quotas than those allocated to them in the present Act. The present sugar Act became effective January 1, 1948 and expires on December 31, 1952.

### LEGISLATION TO AMEND AND EXTEND SUGAR ACT OF 1948

A bill to amend and extend the Sugar Act of 1948 was introduced in the U. S. Senate on June 18, 1951. It is reported that the bill has the support of the State, Interior and Agriculture Departments and various segments of the domestic Sugar industry.

The highlights of the bill follow:

(1) The Puerto Rican quota is increased by 170,000 tons (From 910,000 tons to 10,80,000 tons).

(2) The "full duty" countries quota is increased from 1.36 per cent to 4 per cent of specified "residual."

3. 95 percent of the quota for the full duty countries shall be prorated among countries on the basis of the average amount imported from each country within the quotas established for the years 1948, 1949 and 1950.

(4) Section 202 (e) of the Sugar Act of 1948, concerned with the discrimination against commerce and nationals of the U. S. is repealed.

(5) The amendments are to become effective January 1, 1953.

(6) The bill provides for a four-year extension of the present Act, i.e., until December, 1956.

(7) The excise tax provision is extended to June 30, 1957.

Hearings in connection with the proposed bill were resumed on July 11, 1951, before the House Agriculture Committee in Washington.

### U. S. BEET CROP 1950

The largest sugar beet crop ever produced in the United States was harvested this year. Production of beet from the 1950 crop is estimated at 13,383,000 tons. This compares with 10,197,000 tons produced in 1949 and the 10-year average production of 9,938,000 tons. This year's large crop results from a near record acreage and above average yields per acre.

### ACREAGE AND YIELD OF SUGAR BEET AND SUGARCANE

#### Sugar Beets

Acreage harvested (Thousand Acres)		Production (Thousand Short tons)		Yield per acre (Short tons)	
1949	1950	1949	1950	1949	1950
687	936	10,197	13,383	14.8	14.3
Sugar Cane					
338.8	337.6	6,552	7,078	19.3	21.0

## MELTINGS BY U. S. CANE REFINERIES

Year								Quantity (Short tons, raw value)
1950	...	...	...	...	...	...	...	5,907,001
1949	...	...	...	...	...	...	...	5,485,107
1948	...	...	...	...	...	...	...	5,050,071
1947	...	...	...	...	...	...	...	5,566,390
1946	...	...	...	...	...	...	...	4,061,081
1938	...	...	...	...	...	...	...	4,575,008

Table No. 11

U. S. A. Consumption of Sugar  
(Refined value, long tons)

Consumption of Sugar		1950	1949	1948
Manufactured by U. S. refiners	...	4,709,133	4,362,012	3,962,374
Manufactured by beet sugar factories	...	1,455,088	1,217,650	1,378,240
Direct consumption	...	619,455	643,515	592,963
Total	...	6,783,676	6,223,177	5,933,577
<i>Percentage of Consumption—</i>		%	%	%
Manufactured by U. S. Cane Refiners	...	69.42	70.09	66.78
Manufactured by beet sugar factories	...	21.45	19.57	23.23
Manufactured—white sugars	...	9.13	10.34	9.99
<i>Source consisted of—</i>				
Louisiana and Florida (Cane)	...	456,331	483,718	391,837
United States (Beet)	...	1,455,088	1,217,650	1,378,240
Hawaii (Cane)	...	1,008,889	529,652	595,781
Virgin Islands (Cane)	...	8,798	3,572	3,528
Puerto Rico (Cane)	...	807,437	914,312	819,600
Philippines (Cane)	...	385,708	419,224	190,958
Total Non-dutiable sugar	...	4,122,257	3,568,128	3,379,944
Cuba (Cane) Preferential	...	2,635,597	2,631,482	2,546,095
Total	...	6,757,848	6,199,610	5,926,039
Foreign on Full Duty	...	25,828	23,567	7,538
Total	...	6,783,676	6,223,177	5,933,577

*Per Capita Consumption*

Year	Total Consumption	Per Capita	Increase or Decrease from last year
1950	6,783,676 tons	99.64 lbs.	+ 9.0%
1949	6,223,177 "	92.59 "	+ 4.9%
1948	5,933,577 "	89.84 "	— 5.2%
1947	6,261,652 "	96.51 "	+ 32.9%
1946	4,711,209 "	74.52 "	— 7.4%
1941	6,567,921 "	111.32 "	+ 15.0%

## U. S. STOCKS

Stocks in the hands of primary distributors on 31st December are given for the past five years by the U. S. Department of Agriculture :—

Year	Quantity (Short tons, raw)							
1950	...	...	...	...	...	...	...	1,836,165
1949	...	...	...	...	...	...	...	1,759,059
1948	...	...	...	...	...	...	...	1,497,261
1947	...	...	...	...	...	...	...	1,938,552
1946	...	...	...	...	...	...	...	1,451,847

*Price per lb. c. i. f. New York*

Average Price in cents						Highest	Lowest	Average
1950	...	...	...	...	...	5.87	4.95	5.427
1949	...	...	...	...	...	5.55	5.05	5.308
1948	...	...	...	...	...	5.82	4.60	5.065
1947	...	...	...	...	...	5.463	5.403	5.451
1940	...	...	...	...	...	2.05	1.71	1.89
1932	...	...	...	...	...	1.20	0.57	0.925

(Source :—Willet and Gray)

## UNITED STATES SUGAR TARIFF REDUCED

Following the recent tariff and trade negotiations at Torquay, duty concessions have been granted to the Dominican Republic and Peru with effect from June 6, 1951.

Raw (96°)

Period	Full Duty		Cuban Duty	
From 1st Jan., 1948	...	...	...	...
From June 6, 1951	...	...	...	...

(In Cents per pound)

Cuba has got a preference of 20% in case of raw sugar over other countries. Reductions were also made in duty rates on liquid sugar.

## SUGAR EXEMPTED FROM PRICE CEILINGS

Since January 26, 1951, the sugar trade has been in a state of confusion because the regulation issued at that time by the office of Price stabilization did not make clear and definite the position of raw sugar product, Sugar refiner, beet processor or buyer or seller of the refined product.

On February 12th, 1951, however, O.P.S. issued amendment to the General Price Regulation which apparently exempted Sugar at all levels of production and distribution from price ceiling regulations. However, industrial users and distributors of products containing substantial quantities of sugar still seem to have their prices and margins frozen.

## (B) PUERTO RICO

*Production*—Figures of sugar production for the last five years are given below in thousands of short tons, raw value.

(1000 tons)

1946-47	1947-48	1948-49	1949-50	1950-51
1,088	1,108	1,277	1,286	1,300

*Restriction on sugarcane lifted*—On November 13, 1950 the U. S. Department of Agriculture announced the lifting of all restrictions on the marketing of the 1950-51 crop of sugarcane in Puerto Rico because of the international situation. Previous to this the machinery was set up for allotting proportionate shares for marketing quotas for individual farms in Puerto Rico. The increased demand since the outbreak of the Korean War indicated that Puerto Rico will be able to market all of its old crop sugar and perhaps some new crop sugar before the end of this year.

Under ordinary conditions unlimited marketing of sugarcane for the 1950-51 crop would probably result in an excessive carry-over of sugar at the end of 1951.

*Cane Payments*—Changes in cane marketing practices in Puerto Rico were suggested in a report issued on December 8th, 1950 by the U. S. Deptt. of Agriculture. Although present marketing practices are desirable in many respects, certain changes would increase marketing efficiency and provide similar treatment for all growers and all processors.

A uniform method of payment by processors to growers of cane is recommended, preferably a partial payment at or shortly after the time of delivery of the cane, with a later settlement in cash on the basis of a season average price. At present, some growers are paid in money and some take back sugar, some payments are made monthly and some semi-monthly and there are variations.

The grower's share for 'noble' canes, which make up the bulk of Puerto Rican crop is based on the yield of raw sugar per 100 lb. of this cane. Fractions of a lb. of sugar yield are not taken into account in computing this ratio. The report recommends taking into account as little as one-tenth of a lb.

Two transportation practices are singled out among practices that increase marketing costs. They are the excessively long hauls and cross-hauls of cane, that sometimes occur, and the excessive transportation allowances that processors sometimes make to growers as a means of obtaining cane.

## (C) HAWAII

10,45,000 tons estimated for 1951—Hawaii will produce 10,45,000 tons of sugar in 1951. A million tons will be for mainland shipment and the balance of the crop will be reserved for local consumption in the territory.

Steadily since the end of World War II, Hawaii sugar industry has been driving toward its more-than-a-million ton production goal. Except for the year 1946 when sugar plantations were shut down by an industry-wide strike, production has been moving back to that level.

## (D) DOMINICAL REPUBLIC

The 1949-50 sugar season ended August 31, 1950 with a total production of 475,331 metric tons, only slightly less than the 1948-49 crop of 476,484. Exports totalled 445,455 metric tons and stocks were reduced to 27,684 metric tons.

The 1950-51 season opened on December 20, 1950, nearly 2 weeks earlier than in the preceding season. The 1950-51 production is forecast by the Dominican Sugar Institute at the record level of 580,983 short tons. Early sugar yields have been high and members of the local sugar trade expect production to approach 600,000 tons. Virtually the entire 1950-51 sugar and molasses output has been sold or contracted for sale at higher prices than during the preceding year.

Virtually the entire exportable Dominican sugar production was sold to the British Ministry of Food, as in other years. The contract signed in September, 1949, called for the delivery of 400,000 long tons of raw sugar, with prices of various lots to be established by agreement between the contracting parties based upon market conditions.

Molasses exports totalled 20,922, 282 gallons in 1950 as compared with 18,133, 968 gallons in 1949. All 1949 shipments went to the U. S. A. but during 1950 exports were also made to the U. K. and Canada.

Table No. 12

*Production, Exports, Consumption and Stocks*

(Metric tons)

Period Sept./Aug.			Opening Stock	Production	Exports	Consumption	Closing Stock
1945-46	...	...	69,831	458,919	388,950	34,449	105,351
1946-47	...	...	105,351	465,428	474,509	42,140	54,129
1947-48	...	...	54,129	421,633	343,956	44,564	87,243
1948-49	...	...	87,243	476,484	490,664	36,883	36,179
1949-50	...	...	36,179	475,331	445,455	38,371	27,684

U. K.—*Dominican Republic Contract*—On November 18th, 1950, the President of the Republic officially approved the contract entered into on October 20th between the Dominican sugar Producers and the British Ministry of Food covering the sale of the exportable 1951 raw Sugar crop amounting to 425,000 to 450,000 long tons to the Ministry. The first 100,000 tons have been priced at 4.40 cents f.a.s. with the option to deliver 50,000 tons during January, 1951 at 5.00 cents f.a.s. The subsequent instalments carried over to September, 1951 were to be priced at the average spot price for that month.

## Chapter III

### CUBA

Cuba continued to be the world's largest producer of sugar and held the centre of the stage controlling the trend of the market.

**Table No. 13**  
*Production, Exports, and Stocks*  
(Metric tons, raw value)

Period Sept.-Aug.	Opening Stock	Production	Exports	Closing Stock
1941-42 ... ..	1,386,220	3,450,629	2,331,768	2,217,563
1945-46 ... ..	1,090,765	4,060,527	3,474,969	1,357,256
1946-47 ... ..	1,357,256	5,848,308	4,777,199	1,986,274
1947-48 ... ..	1,986,724	6,056,934	6,189,176	1,839,157
1948-49 ... ..	1,839,157	5,228,211	4,996,365	1,751,199
1949-50 ... ..	1,751,199	5,557,505	4,813,880	2,188,816

#### CUBAN QUOTA 1951

A Presidential decree signed on February 13th, 1951 set the 1951 Cuban sugar crop estimate at 5,600,000 Spanish long tons and allocated the estimated production as follows:—

	Long Spanish Tons	%
Cuban consumption ... ..	300,000	5.4
Free Exports to U. S. ... ..	2,328,536	41.6
U. S. Reserve ... ..	271,464	4.8
Free Exports ... ..	1,300,000	23.2
Special Quota 1951 ... ..	1,400,000	25
Total ... ..	5,600,000	100

The reserve quota of 271,464 tons is intended to cover possible additional sugar requirements in the U. S. during 1951-52. It will be released as any deficits in the U. S. domestic quota are prorated by the Secretary of Agriculture, and any balance remaining will constitute a reserve that will form part of the U. S. free quota, 1952. If, however, the overall U. S. requirements of Cuban sugar exceed the total of 2,600,000 tons earmarked for their use ICEA which acts as the authority for the Control of Cuban Supplies, will release the required additional amount from the "Special Quota." Similarly, if the local consumption requirements are found, to exceed 300,000 tons the Special Quota will provide the balance.

In order to regulate the export and home sales of Cuban sugars, ICEA will continue the practice of previous years in issuing to each mill Identity Certificates for the proportion of its production destined for each of the above quotas. The certificates in respect of the Special quota' sugars carry the obligation to supply, to ICEA a proportionate share of the Institute's sales and not to transfer them without prior consent of the Institute.

### SUGAR SITUATION FOR 1949 & 1950

(January 1—December 31)

The situation in Cuba for the two calendar years January 1st to December 31st, 1949 and 1950 as given by the Cuban Sugar Institute (ICEA) is as follows :

(Spanish tons)

						1949	1950
Carry-over on January 1	...	...	...	...	...	189,435	275,656
Production	...	...	...	...	...	5,073,968	5,393,541
Exports	...	...	...	...	...	4,746,383	5,105,600
Local consumption	...	...	...	...	...	219,322	240,095
Stock on Dec. 31 (subject to adjustment)	...	...	...	...	...	297,698	287,578

### EXPORTS—Principal Destinations

						1949	1950
U. S. A.	...	...	...	...	...	2,693,340	2,788,365
U. K.	...	...	...	...	...	733,921	867,115
Germany	...	...	...	...	...	316,267	150,626
Holland	...	...	...	...	...	255,562	336,410
Japan	...	...	...	...	...	11,484	119,290
Pakistan	...	...	...	...	...	52,671	32,092

*Cuban Molasses Sale*—The entire output of Cubas blackstrap molasses of the 1951 crop has been disposed of at 20 cents per gal. f a. s. Of the estimated 300 million gal. involved, Cuban distillers are to receive 70 million gal. for motor fuel and local household needs and 50 million gal. for production of alcohol for export. U. S. and British buyers were reported to have been allotted 119 million gal. whilst the remaining 61 million gal. would be pro-rated amongst other applicants.

### CUBA/U. K. SECRET SUGAR NEGOTIATIONS

In connection with the Torquay Negotiations it was gathered that Great Britain has agreed to take annually 5,00,000 tons of Cuban sugar for a period of three years. The sugar trade has received this news with some astonishment, for several reasons, the main being the opinion that such a bilateral arrangement cuts right across the International Sugar Agreement. It is also considered to contradict the terms of the Commonwealth Agreement.

An agreement of this kind between Cuba and Britain would lead to violent protests from the Dominican Republic, Haiti, Peru and a number of other exporting members of the International Agreement who have been going along with Cuba's efforts to create a new and broader agreement. The Empire producers could also be expected to protest, especially the British West Indies as they were recently pressing the U. K. for a long term purchase/sale agreement that would permit considerable expansion in their production over the next 5/10 years. They were held to a lower figure by the U.K. but the latter agreed to review the situation again in 1953 with a view to increasing Britain's annual take from the Dominions and colonies.

A Cuba/U. K. deal at this time would, of course, kill all hopes for a new International Sugar Agreement, as the other producing areas would not likely participate if Cuba came to the Council table with a large slice of a desirable market already reserved for herself.



## Chapter IV

### MEXICO

#### MEXICO TO INCREASE SUGAR PRODUCTION

As a result of a plan set down by the National Association of Sugar Producers which also carries the backing of the Government, Mexico expects to produce 1,500,000 tons of sugar by 1956. Should the plan work out, production in the crop year 1951-52 may turn out 1,000,000 tons and with successive increases in the five-year plan a resulting crop of 1,500,000 tons in 1956 is expected.

The purpose is to make of Mexico a sugar exporting country, and at the same time to provide for the rapidly increasing use of sugar in the country. Consumption within the country is increasing at the rate of 20% annually, and by 1953 is expected to reach 800,000 tons. After setting aside a reserve of at least 100,000 tons any quantity in excess of local requirements would be available for export.

The 1949-50 sugar harvest yielded 615,000 metric tons, 30,000 metric tons less than the previous year. The exportable surplus was less than 20,000 tons.

Domestic consumption of sugar has risen from 449,800 metric tons in 1945 to 561,000 tons in 1949 and an estimate 590,000 tons in 1950. Per capita consumption of refined sugar is reported to have increased from 19.5 kg. in 1946 to 22.8 Kg. in 1949. The figures vary from 62.1 kg. to 6.8 kg. per capita.

#### RECORD SUGAR CROP IN 1950-51

Sugar production in 1950-51 was estimated at 683,000 metric tons, a record crop. Domestic consumption in 1951 was tentatively estimated at 620,000 tons. Exports of Sugar from the 1950-51 production was estimated at from 20,000 to 30,000 tons. Exports in 1950, which amounted to 21,165 tons, were below the 138,418 tons shipped in 1949.

Exports of molasses in 1950 amounted to 123,665 tons as compared with 148,112 tons in 1949. As in previous years, the destination of practically all molasses exported was the United States.

### BRAZIL

Table No. 14

*Production, Stocks, Exports and Consumption*

Period Sept.—Aug.			Opening Stock	Production	Exports	Consump- tion	Closing Stock
1944-45	...	...	208,333	1,204,300	26,881	1,254,356	131,483
1945-46	...	...	131,483	1,280,000	27,652	1,257,820	135,685
1946-47	...	...	135,685	1,511,840	40,814	1,400,000	206,925
1947-48	...	...	206,925	1,720,000	253,807	1,470,000	194,758
1948-49	...	...	194,758	1,780,000	165,135	1,630,000	156,841
1949-50	...	...	156,841	1,650,000	581	1,670,000	132,262

It will be seen that consumption during the 1949-50 season was in excess of actual production, and that stocks were reduced by 20,000 tons.

Sugar consumption was also at its highest in 1950 and the per capita consumption of 101.6 pounds is close to the record. Sugar prices increased rapidly in the last half of the year 1950. The output of refined sugar from refineries moved easily to market and although stocks increased, year-end holdings were not considered too heavy.

Canada's foreign trade in refined sugar is relatively unimportant.

[illegible]

## REFINED SUGAR PRICE INCREASED

**CANADA GOVERNMENT STATISTICS**

<i>Raw</i>	1950 <i>Tons</i>	1949 <i>Tons</i>
Stocks of raw January 1 ... ..	68,709	61,721
Receipts of raw Jan. 1 to Dec. 31 ... ..	567,440	566,732
Meltings and sale raw Jan. 1 to December 31 ... ..	563,704	559,657
Stocks December 31 ... ..	72,443	68,709
<i>Refined</i> (Cane and Beet)—		
Stocks January 1 ... ..	110,106	99,832
Granulated Mfd. Jan. 1 to Dec. 31 ... ..	607,106	560,821
Yellows and Browns Manufactured January 1 to Dec. 31 ... ..	58,579	57,785
Total Sales Jan. 1 to Dec. 31 ... ..	630,145	607,075
Stocks Dec. 31 ... ..	144,217	110,106

## CANADA-CUBA SUGAR AGREEMENT

It has been officially announced that Canada has agreed to admit 75,000 short tons (66,964 English tons) Cuban Raw Sugar annually during the three years 1951-1953 inclusive at a more favourable tariff rate in a new arrangement made outside the Trade and Tariff agreements concluded recently at Torquay. Cuba in return is said to be extending tariff concessions to Canada which were originally granted at Geneva.

The Minister of Trade and Commerce, in his announcement to the Canadian House of Commons, stated that no subsidization will be involved on the part of the Government. A portion of the most-favoured-nation duty will, however, be remitted to the importers, sufficient in amount to equalize the laid-down cost of preferential sugars from Empire countries.

The Minister further stated that Canada is prepared to enter into similar arrangements with other traditional suppliers of non-preferential sugars to the Canadian market, on the understanding that imports under all such arrangements will not be in excess of 150,000 short tons (133,928 English tons) raw sugar per year during 1951-1953. Under present supply conditions, the Minister continued, it is not thought that producers of non-preferential sugars, other than Cuba, will be in a position to take full advantage of this arrangement for some time to come.

It is assumed that any such arrangements with other non-preferential sources would be also based on reciprocal tariff treatment. It is difficult to see how Cuba can benefit by this agreement as under present arrangements of supply, shipments of Cuban sugar to Canada must reduce by a similar amount Cuba's outlet in the United Kingdom market.

## ARGENTINE

The 1950 sugar production was the second highest in Argentina's history, totalling 612,994 metric tons, the highest having been in 1946 when 634,543 tons were produced. 36 mills were in operation during 1950 season. Total cane crushed was 7,215,250 tons and the recovery was 8.49% as against 7,657,335 tons with a recovery of 8.28% in 1946.

Table No. 15  
*Production, Stocks, and Consumption*  
(Metric tons)

Year	Opening Stock	Production	Imports	Consumption	Closing Stock
1947 ... ..	263,567	606,128	12,000	581,429	287,746
1948 ... ..	287,746	565,450	0	611,811	249,923
1949 ... ..	249,923	548,772	0	576,816	223,883
1950 ... ..	223,883	612,919	6,000	595,016	248,500

### SUBSIDY CANCELLED

The subsidies which the Government was paying to meet the higher cost of production were cancelled on 1st Oct., 1949 and the ceiling retail price of sugar was raised to \$1.10 per kilo. The 1949 prices between the mills and the wholesale dealers for delivery in Buenos Aires was \$ 10.685 per 10 kilos, for refined. The price to retailers was \$ 10.853 and to the public \$ 11.00.

As regard the price of cane, the grower was paid \$ 40.80 per ton in 1949 as against \$32.10 paid in 1948.

Despite the considerable increase in the retail price of sugar over the past 18 months consumption was expanding. Field work proceeded normally and the labour situation continued quiet.

## Chapter V

### A S I A

#### THE SUGAR ECONOMIC SITUATION OF ASIA

The outbreak of the war between Northern and Southern Korea has made the Far East the focus of public interest. Therefore, we want to provide in the following a survey about the sugar economic situation of the Asiatic continent, now six years after the end of World War II.

Until the outbreak of World War II, Java took the lead among the Asiatic sugar countries. This was mainly due to the well-organized Javan sugar industry. The wonderful cane cultivations of the growing station of Pasoeroean enabled Java to develop her cane and sugar yields per hectare to the highest of the World, thus influencing, consequently, the production costs very favourably. So Java was able to take the lead among the competing cane sugar countries. But nothing has been left owing to the destructions of World War II and the troubles of the post-war years. Today, Java is hardly able to meet home demands when normal conditions will be reached in Indonesia, finally. The exports during recent years were mainly covered by old stocks. They amounted to 63,922 tons during the calendar year of 1948 and to 1601 tons in 1949. Exports will again decrease considerably during 1950. The reconstruction of the Javan sugar industry makes only little progress. The main obstacle, until now, has been formed by political troubles of post-war years with senseless fanatic destructions which did not only break the installations of numerous factories, eliminating sugar stocks, but also destroyed the plants of the famous growing station of Pasoeroean. Today money is the main thing missing beside trained labour. The situation deriving from the Korea conflict will not support the reconstruction of the Javan sugar industry as it means new uncertainty for whole East Asia which will disappear only after the creation of clear aspects from the military as well as from the political point of view. It may, therefore, be said, that Java will not play an important part in world sugar trade during the next future. This is, certainly, deplorable. Even before the Korea conflict, we have made clear that we cannot see the danger of large surplus stocks in the world sugar economy. On the contrary, the development of recent weeks has shown that every departure from the normal course of affairs—which will be quite normal in this turbulent world—will quickly result in shortages. The world needs the Javan sugar and especially the sugar supplies of Formosa which have been able to fill different gaps during the past years, which have, however, become rather doubtful for the future.

Pakistan has become a sugar importing country owing to its separation from India. Home demands are estimated 250,000 tons against a home production of some 30,000 tons only. There are of course, plans for the foundation of new factories the realization of which will, however, need some time.

The sugar industry of the Philippines has been hit especially cruelly by World War II. During the campaign year of 1944-45, there was no sugar production at all. The production during 1945-46 amounted to 11,725 tons only. It has, however, increased to 726,000 tons during the campaign year of 1949-50 against 1,040,457 tons during 1940-41. This shows that it has

not been possible to eliminate all war damages until now and the Philippines are not able at present to increase her exports to the United States to her full export quota. This duty free import quota amounts to 850,000 long tons. According to legislation, this quantity of duty free Philippine sugar can be exported until July 4th, 1954 only. From this date onward, Philippine sugar imports will be taxed progressively. According to the sugar agreement of 1946, 5 per cent of the Cuban preferential tariff will be raised in 1954, being increased annually for further 5 per cent until it will reach the full amount of the Cuban preferential tariff in 1974. It is quite clear, that such long-term agreements are rather troublesome in our quickly changing time. Today, when we can hardly overlook the economical development of the coming year it is quite impossible to do so with 25 years. Nevertheless, it means a threatening problem for the Philippines to look at this approaching sugar import tariff and, consequently, it is not astonishing to see the Philippine government looking for other markets. As long as there is no Javan sugar in East Asia, there are certainly favourable possibilities for Philippine sugar there if it will be possible to adjust production costs to the prices on the free world market. With the present exchange level, this will not be very difficult. The main market will be formed by Japan. But China and other sugar importing countries of Asia may also become good markets for Philippine sugar, so that it may be said that the Philippine sugar industry shows quite favourable prospects for the future.

The contrary may be said of Japan. The Japanese had established an important cane sugar industry on Formosa which was able to meet the main part of the Japanese sugar consumption. After the defeat, Formosa became part of China. Only a small beet sugar area in Hokkaido was left to Japan beside an also insignificant cane sugar district on the islands southward Japan. According to recent information, the home production of beet and cane sugar has not quite reached 30,000 tons in 1949-50 whilst the Japanese consumption amounted to 1145,630 tons 1937-38. This comparison shows the whole misery of the Japanese sugar consumption. There are no possibilities for an increase of the home beet or cane sugar production. There is, however, no foreign currency for the import of 1 million tons of sugar which would, at least, be necessary to cover the normal sugar demand. If there will not occur decisive changes, the sugar situation of Japan will remain very difficult.

The reconstruction of the sugar industry of Taiwan (Formosa) had made good progress during the post-war years. The production, which had reached 263,597 tons in 1947-48, increased to 631,346 tons in 1948-49. It is estimated at 600,000 tons for 1949-50 whilst not more than half of this quantity is expected in 1950-51. Moreover, Taiwan is today one of the most problematic points of the world, as Communist China has clearly expressed her claims for Formosa whilst the United States want to defend the island. This makes clear that the future of the island as well as of its sugar industry is rather uncertain.

China has been uncertain as to her sugar industry as well as to her sugar statistics, even before World War II. Before the break-down of National China, her Ministry of Agriculture had informed that continental sugar production of China amounted to 400,000 tons annually. This is of course very little for a population of 450 millions. Consequently, today like before the war, China depends considerably on the import of sugar. When the sugar production of

Formosa was at their disposal, the national Chinese sugar supply was not good but by far better than today. The loss of Formosa and the impossibility of importing large quantities of sugar show a bad effect on China's sugar supply. It would probably be possible to extend the cultivation of cane sugar at home, but it will not be realised owing to the political and economic situation at present. The great importance of the Chinese market—in case of other political conditions—has been stressed especially when there were great surplus stocks. It has been calculated that China—with a per capita consumption of 20 kilograms only—would need 9 million tons of sugar. But why shall the Chinese not eat the same quantity of sugar like the American? This would, however, amount to astronomic figures. They show the sugar expert the immense importance and the astonishing economic and political possibilities contained in such a huge state with an extension of 11 million square kilometers and a population of 450 million inhabitants. Consequently, it will be always important to observe the sugar condition of China.

As to Indo-China, little can be said about sugar. Before the outbreak of World War II the sugar production amounted to about 20,000 tons by which home demand could be met. There were three factories in the fertile districts of the South where conditions for cane cultivation are favourable and labour is abundant. Two of those factories were situated in Cochin-China, in Hiep Hoa and Than Dien, some 60 kilometers from Saligon. The third was situated in Southern Annam, in Tuy Hoa. The factories in Hiep Hoa and Than Dien are now in the area under French control. It is reported that production has reached 5,000 tons there last year. The necessary additional quantities for the supply of the population have been imported from Reunion. The prospects of Indo-China's sugar production may be called favourable if it will be possible to get political order. The very small per capita consumption could be developed and there are good export possibilities to China, Japan and other import markets of the Far East.

Manchuria possessed a small beet sugar industry before World War II. According to latest information, some beet sugar is still produced there. Moreover, additional sugar quantities are reported to be imported from USSR. As the population contains 43 millions, the sugar supply, like in China, is rather bad.

Iran has a beet sugar industry with a capacity of some 50,000 tons of sugar annually. This is, however, not sufficient to meet home demands which amount to about 150,000 tons annually. Iran is an important sugar importing country the main quantities of which were shipped from British refiners during recent years. The British refineries exported 116,120 tons of refined sugar to Iran during September-May. As there are no signs of an extension of home production, Iran will, also in future, depend on the import of considerable sugar quantities.

Summing up, it may be stated, that there are great possibilities on the Asiatic Continent (Java, Philippine, India, Indo-China, China) to increase sugar production. But there are still greater possibilities to increase sugar consumption as there are different Asiatic districts where the per capita consumption of sugar is unusually low. In Asia, however, like in all other districts, the main necessity for a development will be political quietness.

## INDONESIA (JAVA)

### ESTIMATED SUGAR PRODUCTION IN JAVA

It is not yet possible to obtain a reliable estimate of the 1951 crop. Previous year's production totalled 277,000 metric tons. Contrary to earlier intentions plantings were extended to 44,000 hectares with an estimated production of 560,000 tons.

Under the present circumstances, however, this figure will certainly not be reached, and estimates run not higher than 400,000 tons in total.

Reports from certain cane growing areas in East Java, notably in the Sidoardjo Delta, show little improvement in general conditions. The loss of cane in some districts has reached such proportions that the management of a few mills say that they do not consider it will be worthwhile to grind at all during 1951.

Under the circumstance it is not surprising that NIVAS will not commit themselves for the present. They say that they will not be able to decide before August, 51 (when the bulk of the crop will have been milled) how much sugar will be available for export.

There appears to be ample sugar here out of last year's production to take care of home consumption until the first deliveries of 1951 crop, and the authorities have in fact recently made some extra allocations for the local markets. Under the latest, 10,000 tons of Java sugar are being offered for shipment to other islands—subject to transport licence—at Rupiahs 2.80 per kilogram ex-godown for white sugar and Rupiahs 2.40 for brown sugar.

The price of white sugar distributed under the rationing system in Djakarta was Rupiahs 1.95 per kilogram.

It was said that the Government were in favour of ending sugar rationing in Indonesia from July, 1951. This would imply that a considerable quantity of sugar would have to be reserved for local consumption. It was generally agreed that the Indonesian population is a larger potential consumer of sugar than before the war.

This is particularly noticeable in the towns. Distribution difficulties, including transport to some of the more outlying parts of the archipelago, may temporarily act as a check to actual consumption, but there is little doubt that consumption figures will rise when the obstacles have been removed.

To sum up, it is not believed that Java will come out as an important export seller during 1951. At present it may be assumed that under favourable conditions Java may have about 50,000 tons of sugar to export out of the coming crop.

#### JAVA—YEARLY STATISTICS—(APRIL-MARCH)

Year						Factories working	Cane area (hectares)	Sugar produced (tons)
1938-39	...	...	...	...	...	80	85,308	1,398,922
1939-40	...	...	...	...	...	84	95,468	1,575,353
1940-41	...	...	...	...	...	85	91,830	1,605,057
1947-48	...	...	...	...	...	3	n.a.	8,250
1948-49	...	...	...	...	...	12	n.a.	53,631
1949-50	...	...	...	...	...	24	23,455	223,499

n.a.=Not available.



## PROSPECTS OF SUGAR EXPORTS

According to M/s Erdmann and Sielckess, Djakarta the question regarding the quantities of sugar available for exports from Java is difficult to answer. Nothing worth mentioning has been exported since September 1, 1950 and nothing was likely to be available before the middle of 1951.

According to the official figures of the Statistic Bureau, the following quantities of crystal sugar were exported from Java during the Calendar year 1950 (in metric tons).

<i>Destination</i>								<i>Quantity</i>
Saudi Arabia	...	...	...	...	...	...	...	1,016
Singapore	...	...	...	...	...	...	...	1,326
Dutch New Guinea	...	...	...	...	...	...	...	39
Others	...	...	...	...	...	...	...	39
								2,440

A report from the Hague stated that four sugar plantations in Eastern Indonesia have decided to plant no sugarcane during 1951 owing to lack of security and frequent lootings.

**Sugar derationed** From July 1951 rationing of sugar has ended. The supply of sugar available for export will be under the supervision of the Government and regular supplies for internal consumption will thus be assured.

Table No. 16

### *Production, Imports, Exports, Consumption and Stocks*

Period Sept.-Aug.	Opening Stock	Production	Imports	Exports	Consump- tion	Closing Stock
1938-39 ...	691,674	1,543,582	1,550	1,174,313	320,101	747,849
1939-40 ...	747,849	1,644,706	411	1,101,666	334,865	956,435
1940-41 ...	956,435	1,520,802	0	841,986	370,196	1,282,229
1948 ...	161,069	44,616	11,151	63,158	132,400	17,125
1949 ...	17,125	223,517	...	41,019	...	...
1950 ...	...	277,158	...	2,459	...	...

## JAPAN

*Effect of Peace Treaty*—The peace treaty for Japan would give her considerable freedom in the International trade. Under the terms of this treaty, SGAP would no longer control the allocations of foreign exchange for the purpose of sugar. Likewise, Japan freed from certain export restrictions probably would enlarge her export industries and trade. This combination of circumstances would lead to a substantial increase in the imports of sugar by Japan.

When one considers that Japan used and imported roughly about 1,000,000 metric tons pre-war, and that her population has expanded in the interim period and that her recent consumption has been at a rate of only 1/3 the pre-war level, there is ample room for increased sugar consumption there.

### JAPAN—YEARLY STATISTICS

(Metric tons, tel quel)

*September-August.*

					1950-51	1949-50	1948-49	1947-48
Production	...	...	...	...	42,000	35,319	30,173	31,337
Imports	...	...	...	...	430,000	303,902	299,875	507,311
Initial stocks 9/1	...	...	...	...	52,500	50,575	25,334	11,386
Total					524,500	389,796	355,382	550,034
Final stocks 8/31	...	...	...	...	50,000	52,500	50,575	25,334
Deliveries	...	...	...	...	474,500	337,296	304,807	524,700
Exports	...	...	...	...	...	...	...	...
Consumption	...	...	...	...	474,500	337,296	304,807	524,700

The main sources of Japanese imports are Formosa, Cuba and Mexico.

*Petition of Legalisation for the Philippine Sugar Industry to export some of its Raw Sugar to Japan*—After World War II the Japanese sugar situation has been fundamentally changed by the loss of Taiwan (Formosa), Japan being obliged to import her yearly sugar requirements from foreign countries. It is, therefore, easy to understand that Japan endeavours to import the required sugar quantities from as favourable as possible sources. In this connection the following “Petition of Legalisation for the Philippine Sugar Industry to export some of its raw to Japan” of January 23rd, 1951, which was addressed to the occupation power may be of interest :—

“In connection with the distribution of the Philippine Sugar, we (Japanese) would venture to point out an unnatural and uneconomical flow in the term of international sugar trade routes even among the family of democratic nations. Outspokenly, if the United States could manage to take in more Cuban Sugar as she need it from the Philippines, and then if Japan could be entitled to share Philippines sugar in part after the U. S. instead of procuring it from such an outlandish and competitive source as Cuba, the shortening in the trade routes will go a long way to ease the freight market, not to mention the other benefits of all the participating countries.

“A question of customs duty may come into this operation. But the technical adjustment shall be effected with ease by the U. S. Government simply transferring the amount of customs duty collected from the additional import of Cuban sugar to the Philippine sugar interests for

their export to Japan, which otherwise might have fetched higher prices in the States as duty-free sugars.

Japan finds an easier and by far the shortest approach to a dependable sugar supply source. She can thereby minimise the purchase cost in terms of freight and insurance premium to say nothing of interest on import draft.

The Philippines will benefit thereby almost as much as Japan in similar terms.

We, the Japanese Sugar Refiners Association, hereby submit our *Petition of Legalisation for the Philippine Sugar Industry to export some of its Raw to Japan* through the good offices of the Government of the United States of America, for we understand the achievement of this and request the U. S. internal legislative measure to be taken first."

## PHILIPPINE

Table No. 17

*Production, Consumption and Exports*  
(Metric tons)

Period						Production	Exports	Consumption
Sept-Aug.								
1938-39	...	...	...	...	...	990,471	915,080	103,000
1939-40	...	...	...	...	...	947,067	915,080	125,000
1940-41	...	...	...	...	...	1,040,962	842,454	145,000
1947-48	...	...	...	...	...	361,258	191,477	155,208
1948-49	...	...	...	...	...	661,725	497,587	129,910
1949-50	...	...	...	...	...	613,720	412,548	166,732

## PHILIPPINE TO SEEK NEW OUTLET

The Philippine Government has decided to divert to other countries upto 5% of its yearly quota of 850,000 long tons of sugar earmarked for the U. S. A. The diverted quantity amounting to some 40,000 tons, will go to other Far Eastern countries.

The country is seeking new outlets partly because of imposing three years hence of progressive duty rates on Philippine Sugar by the U. S. which will bring marketing problems. The latter would be intensified by the fact that the 1953-54 and 1954-55 sugar crops are expected to exceed the United States quota.

## FORMOSA

### REVIEW OF SUGAR INDUSTRY IN FORMOSA

As is generally known, the Japanese had played an important role in building up the modern sugar industry of Taiwan during their occupation. But as a result of world war 2, they left the island with devastations and ruins. Of the 42 factories which belonged to the 4 former Japanese sugar companies only 8 narrowly escaped bombings by American Air Force. The rest all suffered more or less severe damage, and some of the largest mills received especially heavy destruction and needed enormous repairs to get back to work.

As to the cane plantations, total acreage under cultivation once reached an all-time high of 160,000 hectares. After the breakout of the Pacific War, however, the Japanese turned it in vast scale to grow food crops in order to meet the pressing food requirements resulting from the expanding military operations. The farmers, discouraged by the destruction of sugar mills and the dim outlook of sugar production, also declined to put their lands under cultivation of cane. Thus the shortage of cane supply was acute in the immediate post-war period.

Furthermore, the usual markets in Japan proper and in China's north and north-east were no longer accessible towards the end of war because of the clipping state of Japanese shipping. For the same reason, equipment and materials were hard to obtain from outside. All these factors invariably contributed to the deteriorating of the once most prosperous sugar industry by the time of Japanese surrender. So the situation was critical when the former Japanese sugar companies were first taken over by the Chinese Government. It was transitional period when the conditions of farming, transportation and supply of equipment, materials and fertilizers were most difficult and the repatriation of the skilled Japanese personnel caused serious problem of their replacement—the more so because they hardly let the local employees have any access to the top level skill under their role. Indeed, the prospect of Taiwan sugar industry once became so dark that most Japanese thought rehabilitation was almost impossible. Some American experts estimated the total rehabilitation would need U. S. Dollar 30,000,000, a sum only possible through foreign assistance.

Nevertheless, it is an industry which the majority of farmers in Taiwan depends upon so heavily for their livelihood and whose importance to the whole national economy is so great that it does not at all warrant being long laid off. In the winter of 1947, the 42 factories of the 4 former Japanese sugar companies were merged into 36 factories under the single management of the Taiwan Sugar Corporation. Despite various formidable difficulties, the Corporation finally succeeded in rehabilitating this vast industry through the strenuous efforts of its entire personnel with local money and local materials. All the factories, except one whose scale was so small that it would not pay to get it repaired, were put into operation, although rehabilitation was by no means complete.

The former Taiwan Sugar Experimental Station at Tainan was also incorporated in the Taiwan Sugar Corporation and a sub-station of the same nature was established by the Corporation at Pingtung. More than 3000 kilometers of light railway operated by the former Japanese sugar companies taken over by the Corporation were restored to its proper function. About 50,000 hectares of land, divided into 186 sugar cane plantations, are operated by the Corporation itself, and more than 200,000 cane growers participate in the contracted plantations for supplying sugar cane to the factories.

The total area of sugar cane planted for the 1946-47 crop year was only 32,934 hectares, and only  $\frac{1}{3}$  of the harvested cane was used to produce sugar whereas  $\frac{2}{3}$  was retained for seedlings for future crops. This caused drastic reduction of sugar production to the insignificant figure of 30,000 metric tons for the year 1946-47, the lowest in history. But total acreage of cane plantations expanded rapidly to 85,000 hectares in 1947-48 and 120,000 hectares in 1948-49. Since then, total acreage has shown a downward trend partly as a result of conversion of some

portion of the cane plantations to rice growing in compliance with the provincial Government's food production policy and partly due to the uncomfortable fact that the disproportionate rise in the prices of the competing crops has worked unfavourably against cane growing.

The methods of payments of cane delivery have long been centre of discussion. In the days of Japanese occupation, all payment was made in cash on fixed terms. This was found very unsatisfactory towards the end of the pacific war when the value of local currency began to depreciate at an alarming rate. It is because of this that the sugar-sharing method was introduced in 1946-47. However, various conditioning factors have persistently made cane growing unprofitable although the sugar-sharing ratio was revised to the advantage of the cane growers. To secure adequate cane supply, efforts have been made to promote their interest and a variety of incentives provided with satisfactory result.

The problem of providing the cane growers with fertilizers and loans has been particularly difficult in the course of expansion of cane productions. Cane growing needs enormous amount of fertilizers which Taiwan has never produced in sufficient quantity. During Japanese occupation of the island, most of them were imported from Japan proper and Korea. These sources of supply have been cut off since the end of war. And only 3000 tons of fertilizers were left over by Japanese. Therefore, only a meagre amount of 110 kilograms of fertilizers was applied per hectare for the crop year 1945-46. Efforts have been made to increase the amount since then. It was raised to 400 kilograms for 1948-49 and 500 kilograms for 1949-50. The total quantity applied for these years amounts to 120,000 tons, the major portion of which being imported from the United States, Great Britain, Russia and Canada. Furthermore, as the cane growing period covers 18 months, the growers are usually unable to make the disbursements for rent, seedlings and all other farming expenses before harvesting. For these purposes the sugar factories have to advance loans to about 200,000 cane growers. These loans usually require large sums of local Taiwan currency every year.

Due to these and other measures adopted by the Taiwan Sugar Corporation the industry has made steady progress both in quantity and in quality. The cane yield per hectare was only about 30 tons for the crop year 1946-47. It quickly increased to 40 tons for 1947-48 and 50 tons for 1948-49 and 1949-50. At the same time, improvements in manufacturing technique and in management also succeeded in raising sugar yield from 9.7 per cent in the immediate post-war year to 11.3 percent in 1948-49. The total sugar production has increased from 31,309 metric tons in 1946-47 to 634,482 metric tons in 1948-49. Although reduction was registered in 1949-50, total production still exceeded the level of 600,000 metric tons, i.e., 612,624 metric tons. But production for crop year 1950-51 is estimated to be only about 400,000 metric tons: this is due to the decreased acreage of cane planting, which is the direct result of lowered price of sugar last year as compared with that of other kinds of crops.

The detailed figure of sugar production from 1945-1951 is given below:-

<i>Crop year</i>										<i>Production (metric tons)</i>
1945-46	...	...	...	...	...	...	...	...	...	80,074
1946-47	...	...	...	...	...	...	...	...	...	30,889
1947-48	...	...	...	...	...	...	...	...	...	263,581
1948-49	...	...	...	...	...	...	...	...	...	634,492
1949-50	...	...	...	...	...	...	...	...	...	612,624
1950-51 (Estimated figure)	...	...	...	...	...	...	...	...	...	400,000

Viewing national economy as a whole, the importance of Taiwan sugar industry is only too obvious. First of all, it enables China to be self-sufficient in her sugar supply and thus contributes directly to the material well-being of the entire population. Secondly, it puts China in a position to export her surplus sugar to the foreign markets in exchange for the much-needed foreign exchange.

As to the future of Taiwan sugar industry, there is every reason to be optimistic, even considering home markets alone. China's annual sugar consumption in normal years is estimated at about 1,000,000 tons, and yet her per capita consumption averages only about 2 kilograms in contrast to 50 kilograms per capita or more in the United States and Great Britain. If we calculate on an increased consumption, say 10 kilograms per capita for the future, China would need about 4,500,000 metric tons for her home consumption alone, not to mention the needs of the neighbouring countries. To meet this enormous future demand, the Taiwan Sugar Corporation would naturally bear the major portion of the responsibility for production. Realizing the serious shortage in the coming years, the Corporation has launched on a long range programme—a 3-year plan—to increase the yield per hectare of sugar cane. And this programme consists of the following four basis projects:—

1. Replacement of the old variety of sugar cane under cultivation.
2. Mechanization of sugar cane plantations.
3. Development of ground water for irrigation.
4. Land reclamation and improvement.

The project for the replacement of the old cane variety F 108 with the new ones, F 134 and NVO 310, has already been well under way. Compared with F 108, by data from field tests, the yield increase of F 124 shows at least 30 per cent more. At present all efforts are concentrated on the extension of the acreage of this new variety. 6,000 hectares of F 134 are planned for 1950-51 and five times as much are expected for 1951-52.

The projects of mechanization and irrigation are also in good progress, but their complete realization will need an additional investment of U. S. Dollar 11,357,000.

Finally, the project for land reclamation and improvement is still in the stage of planning. But with the realization of the three projects above mentioned it is estimated that an increase of 200,000-350,000 metric tons of sugar can be expected.

## THAILAND

Machinery and other equipment at the Thai Government's two white sugar factories have been so improved that the current cane sugar season will witness the production of white sugar in Thailand for the first time in its history. The combined production of the two factories will also be increased to 10,000 metric tons. Production of unrefined sugar at the two factories last season amounted to 8,155 metric tons compared with 8,069 tons in 1948-49. There are also a few small factories which turn out raw cane sugar. Current annual sugar requirements total about 40,000 tons.

## BURMA'S SUGAR PLANS POSTPONED

In its "Two-Year Plan of Economic Development" issued in 1949, the Government of Burma announced a programme to construct two Government-owned sugar factories with a combined capacity of 24,000 tons. Equipment was to have been obtained from the U. K., the U. S. and the Netherlands, and the installations completed within three years.

However, the disturbed internal security situation has postponed the programme indefinitely. Funds originally earmarked for this purpose have been spent on other projects, and it is impossible to say when the sugar developmental programme will be revived. Present production of the comparatively modern Zeyawaddy factory is far below the pre-war output. From a long-term standpoint, it is anticipated that Burma will eventually seek to become self-sufficient again in sugar.

## CEYLON

### Recommendations of Prof. Walawalkar

The establishment of ten sugar factories in Ceylon has been recommended by Prof. D. G. Walawalkar, a sugarcane expert at the Indian Institute of Sugar Technology, Kanpur, in his comprehensive report submitted to the Government of Ceylon in July, 1950. The Ceylon Government requested the Government of India sometime in 1949, to depute an officer to advise it on its proposal for establishing a sugar factory in that country. Complying with this request the Government of India sent Prof. Walawalkar to undertake a preliminary investigation and report on how the scheme could be brought into effect. He was also asked to advise on the best method of cultivation of sugarcane on a large scale. Prof. Walawalkar visited the country towards the end of 1949, and after making a detailed survey of the island submitted a report to the Government of Ceylon which is under consideration.

Although the capital expenditure of the Government's scheme of establishing sugar factories would be high it is advisable, Prof. Walawalkar is reported to have pointed out, that Ceylon should have sugar factories. At present the country depends largely on imported sugar and has been spending enormous sums on these imports. For instance, the quantity of sugar imported into Ceylon in 1949 amounted to 116,456 tons. The expenditure on sugar imports in future will be considerably increased consequent on the increase in population as also in the consumption of sugar by the people. In view of this and with a view to saving large sums of foreign exchange, Prof. Walawalkar has emphasized the need for making efforts in the direction of attaining self-sufficiency in regard to sugar requirements.

## IRAN

Refined-sugar production in Iran from the 1950 sugar-beet crop is estimated at 55,188 metric tons, an increase of 89% over the 1949 output of 28,109 tons. It was the record production for the last 11 years. During 1949-50 Iran imported 164,275 tons of refined sugar, mainly from Great Britain (153,003 tons), India (9,628) and Soviet Russia, the latter supplied sugar after signing a trade agreement, in exchange for rice and dried fruit.

*Iran Sugar Barter* :—Foreign purchasers of sugar have been taken over by a Government Agency as a result of the Russo-Iranian trade treaty signed some time ago. Dealing in sugar had been restored to the free market, but with the barter deal to take 75,000 metric tons of sugar from Russia in 1951, the Government has reverted to its monopoly policy.

## TURKEY

### Turkey's Sugar Production At All-Time High

Production of sugar beets in Turkey in 1950 amounted to 855,066 metric tons, compared with 816,679 tons in 1949. The output of sugar amounted to 137,430 tons, a record production and almost 2 per cent above the 134,850 tons produced in 1949.

Stocks on hand on 1st January, 1951—138,772 tons—are expected to be sufficient without imports, to meet domestic requirements to the next harvest, as sales have averaged from 10,000 to 11,000 tons a month. Molasses produced during 1950 was used for making alcohol.

## PAKISTAN

### Development Of The Sugar Industry In Pakistan

The inauguration on 19th Dec., 1950 last of the Premier sugar factory at Mardan marks the beginning of a new era of industrial progress in the N. W. F. P. of Pakistan.

The factory is the largest in Asia with an initial capacity of about 2,500 tons of cane per day, with provision for the installation of additional plant to bring the throughput up to 5,000 tons. It is equipped for the production of white sugar by the double carbonatation process and all plant was supplied by Messrs. George Fletcher & Co.

The milling plant consists of 18 rollers 36 in. × 78 in. driven by two Robey drop-valve engines in groups of nine rollers. They are preceded by the two sets of rotary cane knives. The factory operates on a boiler pressure of 200 lb. per sq. in. and a back pressure of 15 lb. per sq. in., a make-up valve being provided to maintain constant pressure in the exhaust main.

Table No. 18  
*Sugar Statistics Of Pakistan*

				1950-51	1949-50	1948-49
Area under cane (Acres)	...	...	...	700,000	754,000	714,000
Yield in terms of Gur (Tons)	...	...	...	874,000	1,039,000	1,017,000
White Sugar produced (Tons)	...	...	...	43,365	23,284	31,756
Cane crushed (Tons)	...	...	...	...	286,358	353,052

The final forecast of the area under sugarcane in Pakistan for the year 1950-51 is 700,000 acres as against 754,000 acres reported in the final forecast of the previous year. There was a



general decrease in the acreage of this crop throughout Pakistan, which is attributed to unfavourable weather conditions prevailing at the time of planting. The above figures include the area damaged or destroyed by excessive rains and heavy floods in the Punjab in September, 1950.

The yield of this crop is 874,000 tons in terms of gur as against 1,039,000 tons reported in the final forecast of the previous year. The total area under date-palm and other sugar producing plants is estimated at 41,000 acres as against 42,000 acres of the previous year and the sugar likely to be obtained from them about 114,000 tons as against 115,000 tons in the previous year.

### **SUGAR PRODUCTION AND IMPORTS IN 1950-51**

Pakistan imported 67,730 tons of sugar during the year 1950. The total quantity of sugar produced in the country amounted to 43,365 tons.

The United Kingdom has sold Pakistan 10,000 tons of British refined in forward position, for shipment during the first quarter of 1951.

### **PAKISTAN TO ACHIEVE SELF-SUFFICIENCY IN SUGAR**

Pakistan imported 67,730 tons of sugar at a cost of Rs. 565.73 lakhs during the period January, 1950-January, 1951. The total quantity of sugar produced in the country during the same period amounted to 43,365 tons, valued at Rs. 399.19 lakhs. There are, at present, eight sugar factories in Pakistan—four in East Bengal and two each in the Punjab (P) and the N. W. F. P.—with an aggregate daily cane-crushing capacity of about 8,891 tons. The biggest of these factories is the recently established Premier Sugar Mills in the N. W. F. P., which, it is claimed, is to crush more than 5 lakh tons of cane, yielding about 50,000 tons of sugar, per annum, which is expected to be increased to 10 lakh tons of cane, yielding one lakh tons of sugar, by 1954-55.

With a view to achieving self-sufficiency in sugar and thereby saving a considerable amount of foreign exchange now being spent on imports of sugar from abroad, the Pakistan Industrial Advisory Committee for Food Industries has recommended the setting up of 10 more sugar-producing units, each with a daily cane-crushing capacity of 800-1,500 tons, during the next five years. The Pakistan Government has accepted this recommendation.

### **INDUSTRIAL ALCOHOL IN PAKISTAN**

The only plant manufacturing industrial alcohol in Pakistan is at Darsana (East Pakistan). Another plant at Takht Bhai Sugar factory in N. W. F. P. is nearing completion. The present annual production of sugar in Pakistan is estimated at 50,000 tons and it is proposed to develop this capacity to 150,000 tons per annum by 1944-45. Consequently additional plants for power alcohol are contemplated.

## **Chapter VI**

### **UNION OF SOUTH AFRICA**

#### **REVIEW OF THE SUGAR INDUSTRY DURING 1950-51**

The year 1950-51, which marked the completion of the first hundred years of the Sugar Industry in South Africa, saw production raised to a new record level of 685,798 tons. The previous record stood at 614,158 tons achieved in 1944-45, from which point production had declined during the succeeding years, due to adverse weather conditions, until in 1949-50 it was only 561,122 tons.

The expansion programme embarked upon at the end of 1947, however, coupled with an improvement in rainfall during 1949 which averaged 43.35 inches, paved the way for the 1950-51 harvesting season.

A total of 5,721,390 tons of cane was harvested for milling, an increase of 791,810 tons over the previous year. Although early estimates foreshadowed a record crop, it was only towards the latter half of the season that exceptionally dry conditions, favourable to high sucrose returns, contributed towards the considerable increase in the volume of sugar produced.

Other factors which assisted in the crop reaching the new record figure of 685,798 tons of sugar were, in addition to the harvesting of an estimated 220,545 acres, representing an increase of approximately 20,000 acres over the previous year, an improvement in the average sucrose content from 13.52 to 14.19 percent, and greater milling efficiency evidenced by higher average extraction at 93.33 compared with 92.94, and an increase in overall recovery from 83.35 to 83.65.

#### **SUGAR DISTRIBUTION IN SOUTH AFRICA**

The decline in consumption which was commented on last year was of temporary duration and the initial provision made for domestic consumption was soon found to be inadequate to meet the rapidly increasing demand experienced during the year. On several occasions it was found necessary to divert to the local market supplies originally intended for export. This requires frequent adjustment of manufacturing programmes, and imposed an exceptional strain on the Industry's refining resources.

The wisdom and foresight which led to the expansion of the Industry proved of inestimable benefit to the country since South African consumption reached a new high level at 602,353 tons, which exceeded the previous year's by no less than 63,441 tons. This increase was accounted for not only by sales for direct consumption, but also by the remarkable development in secondary food-processing industries whose sugar requirements increased during the year by 30,000 tons to 117,279 tons. This figure does not include an unknown quantity purchased by small manufacturers through merchant channels.

The continuation of the system of regulated distribution under the quota scheme, augmented by the liberal allocation of supplementary quotas, enabled the Industry to supply fully the

entire sugar requirements of the Union. It can safely be said that shortages were virtually unknown, apart from purely temporary occasions caused by transport delays over which the industry had no control. This achievement during a year of rapidly expanding demand may be recorded with justifiable pride.

### THE EXPORT MARKET

Despite the record sales in the home market, the unexpectedly large crop made it possible, after meeting all obligations to domestic consumers, to maintain the level of exports reached in 1949-50. In terms of the Industry's contract with the Rhodesian Sugar Refinery, 30,014 tons of raw sugar were railed to Bulawayo. Under the Commonwealth Sugar Agreement, South Africa shipped 39,242 tons of 96° cargo sugar to the United Kingdom. It is of interest to record that the first trial bulk shipment was despatched in August, 1950, when 5,648 long tons were shipped from Durban to London.

The following table summarises sugar production and disposition during the past ten years :—

Table No. 19  
*South African Consumption*  
(In tons of 2,000 lb.)

Year						Production	Total	Ex-ports
1941-42	...	...	...	...	...	452,119	378,547	59,336
1942-43	...	...	...	...	...	524,975	455,696	48,316
1943-44	...	...	...	...	...	585,392	440,999	154,408
1944-45	...	...	...	...	...	616,158	483,787	111,990
1945-46	...	...	...	...	...	553,074	445,586	71,741
1946-47	...	...	...	...	...	474,769	440,560	10,000
1947-48	...	...	...	...	...	512,005	503,728	10,000
1948-49	...	...	...	...	...	607,845	567,908	15,024
1949-50	...	...	...	...	...	561,122	538,912	70,371
1950-51	...	...	...	...	...	685,798	602,353	79,641

### SUGAR PRICES

Since 1st October, 1946, prices of sugar both for direct consumption and to secondary industry had remained unchanged until the commencement of the year under review. During the intervening 4½ years the Industry's economy has been under over-increasing and severe pressure as the result of rising production costs, particularly for such major items as salaries and wages, bags, fertiliser, native rations, fuel, oil and maintenance, stores and material and railage. A minor concession was granted by the Government when an increase was authorised on 1st May, 1950, in the price of centrifugal sugar sold to manufacturers. After prolonged and intensive investigations leading to the submission of the most detailed evidence of increased costs, the industry was eventually afforded some measure of relief through an advance in the retail of sugar by ½ d. per lb. on 1st November, 1950. Of the additional proceeds accru-

ing from this increase, £ 1 per ton was granted to the distributive trade and the remaining £ 3 3s. 4d. per ton was added to the price of all sugars sold by the Industry in the domestic market. Welcome though such relief was, its coming in mid-season resulted in an increase spread over total local market sales for the year of only £ 1 13s. 10d. per ton.

### EXPORT PRICE

While the price paid for 96° cargo sugar by the Central Refinery in South Africa has increased only from £ 15 7s. 10d. in 1945-46 to approximately £ 19 per ton in 1950-51, export prices for this type of sugar have shown a substantially higher rate of increase and there appears to be no sign of a levelling-off in the world market.

In 1945-46 the export price for 96° Cargo sugar was £ 14 2s. 0d. During 1950-51 the industry received for its export to Rhodesia and the United Kingdom as average net price f.o.r. or f.a.s. Durban of £ 26 4s. 2d. per short ton, basis 96°. The additional revenue derived from these exports, representing 11.6 per cent of production, was an important factor in the economy of the Industry. The comparison with world prices is most strikingly illustrated by the fact that one-third of the Industry's domestic market sales for direct consumption consists of Two Grade sugar on a average polarisation of 98.2825° which realised a net return to the producer of only £ 15 1s. 11d. in 1950-51.

The final average price for the year was £ 19 5s. 6d. per short ton basis 96°.

### EXPANSION OF THE INDUSTRY

The future long term planning of industrial development and marketing policy has been materially assisted by two comprehensive surveys undertaken by the Central Board in September 1949, and December, 1950.

The more recent survey revealed the steady progress made towards the production target of 725,000 ton. of sugar set in December, 1947, for the 1950-51 season. There is no doubt that had more favourable climatic conditions prevailed, this target would have been exceeded and the second phase in the long term expansion programme towards a production figure considerably in excess of the short term expansion target would largely have been accomplished.

The fulfilment of these hopes must rest principally with the dictates of the clerk of the weather since the physical prerequisites to larger crops have been supplied through the increase in areas under cane cultivation by approximately 25 per cent., as well as by the introduction of improved cane varieties. The total acreage harvested in 1947-48, the year in which expansion was approved between the Government and the Industry was 185,667 acres. It is estimated that 253,245 acres will be ready for cutting in 1952-53 and that given normal conditions, cane production will have increased over this same period from 4,534,255 tons to 7,131,573 tons. These figures illustrate decisively the effort made by the Industry to meet the expanding sugar requirements of the Union.

## STATISTICS FOR THE 1950-51 SEASON

						1948-49	1949-50	1950-51
<i>Production—</i>								
Cane	...	...	...	...	...	5,216,144	4,929,580	5,721,310
Sugar	...	...	...	...	...	607,845	561,122	685,798
<i>Crop Data—</i>								
Area: Acres under cane	...	...	...	...	...	406,176	n.a.	n.a.
Acres harvested for milling	...	...	...	...	...	194,632	200,140	220,545
						1948-49	1949-50	1950-51
						Short tons	Short tons	Short tons
						(2000 lb.)	(2000 lb.)	(2000 lb.)
<i>Disposal of Crop—</i>								
Carry-over-1st May	...	...	...	...	...	63,387	81,280	26,937
Consumption	...	...	...	...	...	567,908	538,912	602,353
Exports	...	...	...	...	...	15,024	70,371	79,641
Carry-over 30th April	...	...	...	...	...	81,280	26,937	18,910

## Chapter VII

### A U S T R A L I A

The annual Report of the Bureau of Sugar Experiment Stations covering the period July-June 1949-50, just received, gives some interesting figures covering the 1949 Queensland crop. The Cane harvest, at 6,518,042 tons, was for the second year in succession a record, being 84,486 tons in excess of the 1948 total. The total sugar production in the 1949 season, including 1,031 tons local sales, amounted to 897,267 tons of 94 net titre. This was some 12,782 tons below the 1948 tonnage but was 6,000 tons more than the pre-war high production point of 1939.

The yield of cane per acre of 23.67 tons is the second highest during the last 12 years, the best yield in that period being in 1948. This high cane yield, however, was more than offset by the low sucrose content and the ratio of cane to sugar was the lowest over the period, being no better than the very poor years 1946 and 1947.

The average harvested was the largest in Queensland history, being some 10,000 acres more than the previous record of 265,738 acres established in 1940.

In all districts the percentage of the crop obtained from ratoons was increased, the total being 57.7 per cent. compared with 47.72 per cent in the previous year. The report states that this growing awareness of the value of ratoon crops follows the use of more varieties of cane which are better suited to this practice. A part of the increased acreage harvested is due to the opening of new lands for the settlement of returned soldiers.

The improvement in the field labour position, reported in the previous year, continued during the period reviewed, but labour shortages still exist in certain districts. The expansion of mill capacities will demand a larger labour pool in future years if the mills are to be kept fully supplied with Cane, states the Report.

The following are the crop statistics for the past 12 years:—

Table No. 20

					<i>Acres</i>			
					Cultivated	Harvested	Cane crush- ed tons	Sugar made Tons*
1938	...	...	...	...	347,199	251,064	5,342,085	778,136
1939	...	...	...	...	353,996	261,047	6,038,821	891,422
1940	...	...	...	...	350,851	265,738	5,180,756	759,446
1941	...	...	...	...	334,787	246,939	4,793,589	697,345
1942	...	...	...	...	316,798	238,213	4,350,642	605,680
1943	...	...	...	...	326,478	228,895	3,397,424	486,447
1944	...	...	...	...	317,386	222,215	4,398,190	643,540
1945	...	...	...	...	326,247	239,826	4,551,982	644,661
1946	...	...	...	...	317,766	228,395	3,714,475	512,086
1947	...	...	...	...	332,516	220,649	4,150,987	571,658
1948	...	...	...	...	384,213	285,585	6,433,556	910,049
1949	...	...	...	...	395,660	275,313	6,518,021	897,267

Average yields are as under—

				Cane per acre	Sugar per acre	Cane to 1 ton sugar
1938	...	...	...	21.28	3.10	6.87
1939	...	...	...	23.14	3.41	6.77
1940	...	...	...	19.50	2.86	6.82
1941	...	...	...	19.41	2.82	6.87
1942	...	...	...	18.26	2.54	7.18
1943	...	...	...	14.84	2.125	6.98
1944	...	...	...	19.79	2.90	6.83
1945	...	...	...	18.98	2.69	7.06
1946	...	...	...	16.26	2.24	7.25
1947	...	...	...	18.81	2.59	7.26
1948	...	...	...	24.88	3.52	7.07
1949	...	...	...	23.67	3.26	7.26

\* Raw sugar of 94 net titre.

### FIFTY YEAR'S PROGRESS IN QUEENSLAND

J.L. Clayton, Senior Mill Technologist, Bureau of Sugar Experiment Stations, Queensland, in a recent survey stated: "At the present time important changes are taking place in the industry and many new types of equipment are being installed. Almost all factories have adopted or have taken delivery of high speed centrifugals for the treatment of final massecuites. In addition, the use of Webre pans and pans of the flattened coil type has led to considerable improvement in the boilers of C-massecuites. In the design of coil pans, Queensland undoubtedly leads most other countries. By 1953 the mills should have completed the major portion of the expansion programme now proceeding and it should then be possible to demonstrate properly the technical advances which have been made since the Division of Mill Technology commenced its work."

### SUGAR PRODUCTION IN 1950

The Queensland 1950 sugar crop is estimated at 860,000 tons compared with 897,000 tons last year and 909,000 tons in the preceding year, according to a Melbourne trade estimate. The current year's estimate has been reduced because of dry weather.

The Australian Prime Minister has announced that the Federal Cabinet has approved a rise in the wholesale price of sugar from £A41 9s. 4d. to £A 53 6s. 9d. per ton. Wholesalers and retailers will be allowed a small percentage increase in their profit margins to meet the higher costs of handling.

**SUGAR PRODUCTION**  
(Long tons)

<i>Campaign</i> *										<i>Australia</i>
1950	...	...	...	...	...	...	...	...	...	903,000
1949	...	...	...	...	...	...	...	...	...	936,937
1948	...	...	...	...	...	...	...	...	...	942,893
1947	...	...	...	...	...	...	...	...	...	605,054

**SUGAR CONSUMPTION AND EXPORTABLE SURPLUS**  
(Long tons)

<i>Year</i>								Sugar Con- sumption	Exportable Surplus
1949	...	...	...	...	...	...	...	397,302	439,635
1948	...	...	...	...	...	...	...	402,821	443,072
1947	...	...	...	...	...	...	...	498,551	106,503

\* Estimate.



## Chapter VIII

### BRITISH COLONIES

Table No. 21

*Production and Exports*

Colonies				Details	September—August		
				Metric Tons	1947-48	1948-49	1949-50
British Guinea	...	...	...	Production	166,140	185,582	194,371
				Export	145,352	168,396	177,115
East Africa	...	...	...	Production	86,811	83,566	77,100
				Export	33,032	6,378	2,076
Fiji	...	...	...	Production	145,150	140,035	122,746
				Export	144,199	123,635	122,119
Barbados	...	...	...	Production	79,482	155,181	160,722
				Export	82,011	120,604	161,584
Mauritius	...	...	...	Production	363,245	409,764	416,039
				Export	340,213	386,802	414,049
Br. West Indies—							
(a) Jamaica	...	...	...	Production	196,017	240,460	277,092
				Export	175,606	185,224	219,790
(b) Trinidad	...	...	...	Production	117,844	161,664	148,859
				Export	81,327	149,193	123,129
(c) Leeward Islls.	...	...	...	Production	42,420	56,147	72,715
(d) Windward Isl.	...	...	...	Production	11,768	11,332	13,412
Total				Production	1,209,949	1,445,819	1,484,540
				Export	1,050,848	1,201,849	1,294,884

## BRITISH WEST INDIES

### PRODUCTION AND CONSUMPTION

The following estimates of production and Consumption during 1951 together with actual output in 1949 and 1950 and consumption in 1950 have been received from the British West Indies Sugar Association.

Table No. 22

				Production		Consumption		
				1951 Est.	1950	1949	1951 Est.	1950
British Guiana	...	...	...	205,844	195,651	174,227	16,000	15,529
Jamaica	...	...	...	280,280	271,582	237,743	50,000	47,393
Trinidad	...	...	...	162,500	146,508	159,135	23,000	22,800
Barbados	...	...	...	160,000	158,182	152,731	12,000	12,000
others	...	...	...	75,400	82,766	63,057	7,650	7,457
Total				884,024	854,689	786,893	108,650	105,179

### B. W. I. 1950-51 SUGAR SITUATION

The annual report of the Executive Committee of the West India Committee to the meeting on May 29th devoted much space to the achievement of a long-term arrangement with the U. K. under the Commonwealth Sugar Agreement, the negotiations leading to an increase of £2 7s. 6d. per ton for 1951 sugars and the prospects of a new International Sugar Agreement. The recent agreement between Canada and Cuba, and the negotiations between the U. K. and that country were deplored. Other matters of sugar interest in the report are quoted below.

*Production*—Production of sugar in the British West Indian group of colonies for the quota year ended August 31st, 1950, was again a record as indicated by the following figures: 1944-45, 504,162 tons; 1945-46, 587,936; 1946-47, 607,660; 1947-48, 603,227; 1948-49, 801,538; 1949-50, 853,987; 1950-51, 887,336 tons (estimated).

*Special Sugars*—The Ministry of Food is again taking 15,000 tons of yellow grocery sugars from the British West Indies, allocated to producers in the same proportions as hitherto. In addition, 2,500 tons of molasses sugar and 1,750 tons of muscovado sugar are being purchased from Barbados.

*Molasses*—Demand for high strength alcohol and increased requirements of molasses for stockfeed resulted in a sharp rise in prices towards the end of 1950. Early contracts were made by most British West Indian sugar producers at prices in the neighbourhood of 8 cents to 9 cents per gal. When the rise continued, the United Molasses Company voluntarily offered a substantial increase to those who had made these contracts. Barbados producers made later contracts at 19 cents per gal.

### CANADA AND THE WEST INDIES—(Sugar purchase agreement)

The British West Indian colonies have learned with dismay of the arrangement whereby each year until 1953 Canada has guaranteed to purchase up to 150,000 short tons of sugar from

non-preferential sources (75,000 tons from Cuba and 75,000 tons from other countries) and thereby stultified in part what, from the British West Indian point of view, is the most important feature of the Canada-British West Indies-Bermuda-British Guiana-British Honduras Trade Agreement of 1925. For this step seems wholly at variance with what long experience has taught the British West Indian colonies to expect from the Canadian Government and peoples who, over the past 50 years and more, have consistently demonstrated their good and indeed generous intentions towards them. Certainly none of them had expected Canada to take such a step without prior consultation between all the Governments concerned.

It is understood that some justification for Canada's action is claimed on the grounds that the arrangement is limited to a period of three years. The inadequacy of such a claim requires no comment. It is for the British West Indian colonies now to consider how best to persuade Canada to return to the status quo in 1954. Broadly they must do two things. First, in so far as lies in their power, the Governments and peoples of the British West Indian colonies must be prepared to convince Canada that they realize to the full the nature and extent of their obligations towards her and are determined not merely to avoid in future any actions which might suggest a contrary state of mind but also to go all out in a supreme effort to make the Trade Agreement profitable to Canada. Secondly, they must join forces with the other colonies which are interested in the Canadian market and not rest until the artificial restrictions imposed by the United Kingdom on exports from Canada are relaxed to a point that will allow Canadian manufacturers to supply their requirements to an extent fully commensurate with the benefits which the West Indies receive in the markets of Canada. In 1950, according to Canadian trade returns, Canada imported from the British West Indian sugar producing colonies goods, preponderantly sugar, to the value of \$ 66,472,000. In return, under exchange control, Canada was permitted to export to them goods to the value of \$ 27,638,000 only. For this result His Majesty's Government in the United Kingdom were directly responsible and unless there is a complete and instant change of attitude—the recent “token” scheme does not go nearly far enough—the West Indian colonies must prepare for disaster in the shape of the collapse of their trade with Canada, on which they depend so heavily, and the loss of which would nullify the United Kingdom's lavish expenditure in recent years on development and welfare in the West Indian colonies. Since the war ended, the Canadian Government and people have shown great tolerance in the face of much provocation, but signs are accumulating and the present matter is but one of them—that the tolerance even of Canadians is not inexhaustible.

### MAURITIUS 1950-51 RESULTS

The total production was 456,726 metric tons of sugar, of which 429,959 tons were exported. Local sales upto June 30th, 1951 were 19,259 tons and stocks at that time totalled 7,508 tons. This again constituted a record crop for Mauritius.

Crushing began on June 26th, 1950, and 27 factories operated, the last finishing crushing on Dec. 29th. Manufacturing results compared with the previous season (in brackets) were: sucrose % cane, 14.14 (14.33); sugar produced % cane, 12.05 (12.19); losses, 2.09% (2.14); bagasse % cane, 23.67 (23.9); average pol., 98.3 (98.4); milling days, 119 (113); and tons cane crushed per hour, 56.8 (51.2).

A total of 3,719,674 tons of cane was reaped, of which the millers contributed 2,252,471 and the farmers, 1,467,203. This compared with a tonnage of 3,355,398 in 1949-50. The total cane per ton of sugar was 8.14 tons against 8.06 in the previous season, while the total output was greater by 40,703 tons, or rather more than 10%.

The countries of destination for the exported sugar were: United Kingdom, 193,868 metric tons; Canada, 51,763; Hong Kong, 40,994; Ceylon, 116,904; Aden 9,732; East Africa, 7,491; Zanzibar, 2,221; Tanganyika, 6,056; and Seychelles, 926, metric tons.

## SUGARCANE DEVELOPMENT

Recording his impressions of a recent visit to Mauritius Dr. H. H. Dodds pointed out that one of the finest achievements of its well-equipped Sugar Research Station is the breeding of variety M 134/32 which now occupies 95% of the available cane lands. It is a very rigorous red cane of high sucrose content and general freedom from disease, the establishment of which has resulted in the effective control of the beetle, at one time, a serious pest. Cane is cut at 15 to 18 months with the plant crop, and about 12 months interval with ratoons, six or eight of which can be produced economically. An average yield of cane of about 30 tons per acre is obtained. Commercial fertilizers are freely used as are filter-cake and molasses.

## BRITISH EAST AFRICA

Sugar production in 1949 as compared with 1948 was as follows (long tons) :

								1949	1948
Uganda	...	...	...	...	...	...	...	46,107	64,708
Kenya	...	...	...	...	...	...	...	11,503	12,567
Tanganyika	...	...	...	...	...	...	...	7,429	6,097
						Total.....		65,039	83,372

Output in 1950 was expected to be still lower as a result of the prolonged drought. As internal demand is rising, imports will have to be made for some years. The East African Government are anxious to see the additional plantations and mills established to meet the local consumption.

**FII ISLANDS**

## Yearly Statistics

*September—August*

[illegible]

## **Chapter IX**

### **E U R O P E**

#### **EUROPEAN BEET CROP POSSIBILITIES DURING 1951-52**

Sugar crop prospects in Europe during the coming season will be followed with very considerable interest this year if only for the reason that the campaign in almost every country suffered a most unpropitious start.

The fact that the record tonnages produced during 1950-51 season prompted the general supposition that a substantial fall in output may be seen in the coming campaign lends added interest to current prospects. In actual fact current reports of the progress of the Beet in Europe are by no means unfavourable and encourage the hope that despite the handicaps of late sowings and slow initial development results may prove to be considerably better than the industry dated to hope earlier in the year. Incidentally, it may be called that weather in many countries during the germination period last year left a good deal to be desired, but subsequent conditions more than made up for this poor start.

The close statistical balance in the Open World Market during this past year and the continued limitations placed by economic necessity on hard currency spending in certain important consuming areas of the world make the question of Beet sugar supplies in the European continent an important one.

It would be idle to attempt to form even an approximate idea of the production in the coming season as a good deal can happen for good or evil during the next few months which could very materially alter the size and quality of the harvest. We present a table, based on Licht's latest estimates of sowings, showing the sugar production possibilities if the average yields of sugar per hectare over the five year pre-war period 1933-34 to 1937-38 were attained during the coming campaign. The table below gives this theoretical production for the current season as well as for the previous year, together with the actual output for the last two seasons and the pre-war year 1937-38.

For the first time during this post-war period production in Europe without U. S. S. R. last year was actually within 30,000 tons of the theoretical total. If proof were required that unusually wet seasons invariably result in good sugar harvest, the 1950-51 campaign certainly provided it. It is true, of course, that moisture alone does not produce a good sugar tonnage for the campaign had many other advantages such as good ripening and harvesting weather with no damaging early frosts. In the two dry seasons 1949-50 and 1947-48 actual production totals were respectively 1,700,000 tons and 2,800,000 tons behind the theoretical figures.

Turning to individual performances last year there were several countries which improved on their pre-war yields. France, for instance, produced over 200,000 tons more, the United Kingdom 160,000 tons more, Belgium 116,000 tons, Poland 70,000 tons, whilst Denmark and Turkey were also above the five-year average. Amongst those with yields some way below the average are: Germany with 200,000 tons less, Spain 100,000 tons, Yugoslavia and Roumania each 90,000 tons, and Bulgaria 36,000 tons less. Czechoslovakia was within 27,000 tons of her pre-war yield.

As to the figures for the coming season, on the assumption that each country equalled its pre-war yield, output in Europe without the U. S. S. R., would be very close to 10 million tons, exceeding by 740,000 tons last year's record output and would be no less than 1,300,000 tons above the previous record established during the inter-war period of 8,628,000 tons in 1930-31 which was, incidentally, the first year of the operation of the Chadbourne Plan.

In Germany, an increase in sowings this year of 33,000 hectares brings the "calculated" figure very near to the pre-war production and should it be realized it would add 360,000 tons to last year's output. The theoretical figure for France is some 125,000 tons lower than last season's crop despite the expansion of the Beet area this year, the yield last campaign being superior to the pre-war average. Spain's increased sowings would bring her crop to 360,000 tons, which would be the largest she had ever produced, if she attained her pre-war standard. In the United Kingdom the average yield would show a reduction in the sugar crop compared with last season of 155,000 tons.

As already mentioned it is very much open to doubt at present whether climatic conditions this year will permit of yields anywhere near the five-year average. That the average is well within the capacity of many countries has been demonstrated and, indeed, higher standards were of course attained by many before the war, in years when conditions were particularly favourable to the crop. It remains to be seen whether the improvement in Germany is maintained; hitherto her yields had been somewhat disappointing and certainly a long way short of pre-war performance. There is apparently much room for improvement in certain of the smaller eastern European countries; Roumania, Bulgaria and Jugoslavia, for instance, obtained little more than half of the pre-war yield last season.

The European beet acreage for the season 1951-52 is according to M/s. F. O. Licht, the European Sugar Statistician, higher by 6% as compared to the season 1950-51. The estimates are as follows:-

Table No. 23  
*European Sugar Beet Area for Sugar Production*  
(In Hectares)

Countries	1951-52 (Estimates)	1950-51	1949-50	1937-38
Austria ... ..	36,500	27,980	22,900	37,131
Belgium ... ..	67,954	64,651	60,046	48,249
Bulgaria ... ..	33,000	30,000	30,690	9,972
Czechoslovakia ... ..	220,000	215,000	193,303	166,918
Denmark ... ..	69,080	69,242	62,385	40,400
Irish Republic ... ..	24,000	23,823	23,570	23,746
Finland ... ..	10,000	8,500	7,167	3,345
France ... ..	320,000	295,000	314,246	230,060
Germany ... ..	426,277	393,991	349,468	421,677
Holland ... ..	67,250	66,903	67,476	42,830
Hungary ... ..	115,000	115,000	113,079	37,700
Italy ... ..	180,000	172,000	132,000	108,000
Poland ... ..	275,000	265,000	260,000	146,239

Table No. 23 (Contd.)

Countries	1951-52 (Estimates)	1950-51	1949-50	1937-1938
Roumania ...	90,000	73,500	62,000	29,591
Spain ...	120,000	90,000	90,000	85,000
Sweden ...	55,350	56,553	49,287	55,241
Switzerland ...	5,500	5,807	5,474	2,400
Turkey ...	51,450	50,953	51,209	26,746
United Kingdom ...	165,500	164,863	161,946	126,843
U. S. S. R. ...	1,200,000	1,155,000	1,153,395	1,210,890
Yugoslavia ...	75,000	60,000	47,000	14,582
Total Europe ...	3,606,861	3,403,766	3,256,641	2,867,560

Table No. 24

*The 1950-51 European Beet Sugar Production*  
(Metric tons—raw value)

Countries		1951-52 (Estimates)	1950-51	1949-50	1948-49	1937-38
Western Germany	...	...	1,015,171	626,841	618,243	...
Eastern Germany	...	...	800,000	555,000	680,000	...
Total Germany ...	...	2,177,000	1,815,171	1,181,841	1,298,243	2,226,675
Austria ...	...	156,000	93,333	68,667	52,667	156,984
Czechoslovakia ...	...	928,000	880,000	623,940	634,538	741,187
Hungary ...	...	387,000	255,000	265,000	242,856	122,502
France ...	...	1,315,000	1,433,471	861,211	960,156	969,296
Belgium ...	...	347,000	466,000	345,492	270,194	239,990
Holland ...	...	41,100	411,616	400,923	284,667	246,445
Denmark ...	...	352,000	370,000	321,047	264,910	250,860
Sweden ...	...	333,000	312,000	290,154	288,107	345,194
Poland ...	...	1,023,000	1,056,000	845,000	693,751	562,052
Italy ...	...	655,000	610,000	495,000	454,444	347,111
Spain ...	...	357,000	164,000	162,821	265,558	151,111
Yugoslavia ...	...	238,000	100,000	100,000	95,000	37,369
Roumania ...	...	263,000	110,000	112,000	112,500	75,676
Bulgaria ...	...	89,000	45,000	54,056	74,555	32,430
Switzerland ...	...	32,000	27,550	26,545	27,290	12,100
Great Britain ...	...	612,000	767,080	511,048	631,800	425,982
Ireland ...	...	105,000	100,000	99,000	94,731	95,049
Finland ...	...	32,000	26,500	22,500	23,348	11,026
Turkey ...	...	137,000	152,700	149,834	131,224	60,805
Russia ...	...	2,200,000	2,150,000	2,100,000	1,980,000	2,581,915
Total Europe ...	...	12,149,000	11,325,421	9,036,079	8,880,539	9,687,759

The European sugar beet campaign 1950-51 ended in March, 1951 in all countries. Sugar production reached a height in a great number of countries, which represents a record in the history of the respective countries and which nobody would have anticipated at the beginning of the campaign. This was specially true in Western Germany, France, Poland and Great Britain. Beside the excellent weather conditions, the causes may be attributed to the normal supply of fertilizers, the intensive cultivation of the soil, the use of excellent sugar beet seed and the recovery of the soil from damages caused by the war. At any rate the 1950-51 campaign will be remembered by beet farmers and sugar economists for a long time. It will be given as an instance for the possibility of results reached by the concurrence of favourable conditions and intensive work. The 1950-51 campaign surpasses by far the normal level of the European sugar production.

### AVERAGE YIELD OF SUGAR PER HECTARE

(Metric tons—raw value)

1950-51	...	...	...	...	...	...	...	...	4.06
1949-50	...	...	...	...	...	...	...	...	3.30
1948-49	...	...	...	...	...	...	...	...	2.94
1947-48	...	...	...	...	...	...	...	...	2.29
1946-47	...	...	...	...	...	...	...	...	2.36
1937-38	...	...	...	...	...	...	...	...	3.42

Table No. 25

*Import, Export and Stocks of Sugar (1949-50)*

Countries	Opening Stock (1/9)	Import	Export	Closing Stock (31/8)
Germany ...	180,209	679,364	295,000	69,988
France ...	127,138	428,984	187,462	124,408
Holland ...	19,111	317,492	203,109	52,396
Sweden ...	104,647	86,931	...	99,644
Norway ...	23,764	91,436	...	16,752
Italy ...	86,500	33,000	...	37,500
Poland ...	36,000	...	300,000	41,000
Switzerland ...	100,307	243,632	...	117,000
Great Britain ...	391,059	2,322,462	801,803	340,512
Ireland ...	30,000	71,214	...	65,000
Turkey ...	118,516	...	...	113,350
Russia ...	225,000	400,000	150,000	250,000
<b>Total Europe ...</b>	<b>1,785,812</b>	<b>5,171,820</b>	<b>2,502,725</b>	<b>1,582,891</b>



Table No. 26

*Europe Sugar Consumption*

(In thousands of long tons, raw value)

Country						1949-50	1948-49	1937-38
Austria	...	...	...	...	...	138	131	183
Belgium	...	...	...	...	...	310	275	262
Bulgaria	...	...	...	...	...	59	59	31
Czechoslovakia	...	...	...	...	...	384	373	405
Denmark	...	...	...	...	...	211	185	206
Finland	...	...	...	...	...	119	112	114
France	...	...	...	...	...	1107	1,016	1,025
Germany—								
(E)	...	...	...	...	...	320	297	{ 1,781
(W)	...	...	...	...	...	1,328	1,021	
Greece	...	...	...	...	...	78	70	86
Holland	...	...	...	...	...	481	437	345
Hungary	...	...	...	...	...	197	191	105
Ireland	...	...	...	...	...	129	116	119
Italy ...	...	...	...	...	...	574	561	389
Norway	...	...	...	...	...	97	75	96
Poland	...	...	...	...	...	531	496	445
Portugal	...	...	...	...	...	97	96	69
Rumania	...	...	...	...	...	108	106	114
Spain ...	...	...	...	...	...	237	236	246
Sweden	...	...	...	...	...	371	333	299
Switzerland	...	...	...	...	...	248	167	174
Turkey	...	...	...	...	...	153	139	106
United Kingdom	...	...	...	...	...	2,054	2,023	2,339
Yugoslavia	...	...	...	...	...	122	97	91
Russia	...	...	...	...	...	2,288	2,210	2,446
Total Europe ...						11,770	10,848	11,503

In Europe without Russia the consumption of sugar in 1949-50 increased by 9.89 per cent with respect to the year 1948-49 and an increase of 34.62 per cent with respect to 1947-48. This makes clear that the increase of the European consumption during those years is considerably higher than that of world consumption. This is mainly due to the strong post-war demand of those countries which had to suffer from the consequences of war. This may be stated by the example of Western Germany where sugar consumption nearly doubled from 1947-48 to 1949-50. Consumption has also unusually risen in France, Holland, Poland and

Italy. Normal conditions provided, this rising tendency will also continue during the coming years as sugar is still rationed in some European countries. Moreover, it can be stated that sugar is bought more and more, being a valuable foodstuff and rather cheap in comparison to other articles.

Table No. 27  
*Per Capita Consumption*  
(Lbs., raw value)

Countries	1949-50	1948-49	1937-38
Germany ... ..	54	44	59
Czechoslovakia ... ..	70	68	59
Hungary ... ..	48	46	26
Austria ... ..	44	41	61
France ... ..	60	55	55
Belgium ... ..	73	65	70
Holland ... ..	108	99	64
Denmark ... ..	112	99	121
Sweden ... ..	116	102	106
Norway ... ..	62	62	74
Poland ... ..	50	46	29
Italy ... ..	28	28	20
Spain ... ..	19	19	20
Portugal ... ..	26	26	21
Yugoslavia ... ..	17	14	13
Rumania ... ..	15	15	13
Bulgaria ... ..	19	18	11
Switzerland ... ..	95	90	93
U. K. ... ..	92	90	111
Ireland ... ..	95	85	90
Russia ... ..	26	26	31
Turkey ... ..	17	15	14

## UNITED KINGDOM

### NATIONALISATION OF BRITISH SUGAR CORPORATION PROPOSED

The King's speech at the opening of Parliament in November, 1950, made it clear that the Labour Government intend to nationalize the British Sugar Corporation in which the Government already has a large shareholding. Since 1939 nobody seems quite clear as to the extent of the subsidy received by the Beet Industry. The old established refining industry continues to be run by private enterprise. One might mention here that during 1949-50, the principal refiners exported 650,000 tons of Refined Sugar, which it is claimed is the largest quantity in any one year by any single refining organisation in the World.

The Labour Government's announcement of its intention of nationalizing the home beet sugar industry is considered a useful preliminary move in preparing the way for a later nationalization of the imported sugar refining industry. The British Sugar Corporation which controls the industry at present was established in 1936. Beet sugar is supposed to provide about 23% of Britain's supply of refined. Tate and Lyle Ltd. the leading refiners of cane sugar, provide some 53% and five other smaller companies account for 24%. The argument for full state control of the home grown sugar industry is perhaps more logical than in case of some other industries, since it was established to meet a national emergency (which it did) and has had to be subsidized heavily. It is likely, however, that the labour left-wings will oppose the nationalization of an admittedly expensive section of the sugar industry while the free enterprise is left uncontrolled.

#### BRITAIN'S RECORD BEET CAMPAIGN IN 1950-51

According to the officials of the British Sugar Corporation, refined sugar production in the U. K. in 1950-51 amounted to 681,000 long tons or an increase of 50% over the previous year's figure of 457,000 tons. The high acreage, yield and sugar content have combined to make a record production. The season lasted from September 1950 to February 1951. The average yield in tons per acre was 12.81% and the average sugar content was 16.53%.

Table No. 28

*Production, Imports, Exports, Consumption and Stocks*  
(Metric tons)

Period (Sept.—Aug.)	Opening Stock	Production (Raw value)	Imports (Raw value)	Exports (Refined)	Consump- tion	Closing Stock
1946-47 ...	451,887	628,516	1,758,412	203,857	1,999,600	664,038
1947-48 ..	664,038	484,496	1,803,898	531,563	2,099,000	387,012
1948-49 ...	387,012	631,566	1,941,590	462,097	2,239,000	313,552
1949-50 ...	313,552	522,500	2,322,872	721,692	1,986,500	340,528

#### UNITED KINGDOM SUPPLIES (1949-50)

Replying to a question in the House of Commons on the 8th January, 1951, the Minister of Food gave the following figures in respect of the financial year 1949-50:—

<i>Tons (Raw Value)</i>						
Imported from Commonwealth	...	...	...	...	...	985,000
Imported from foreign countries	...	...	...	...	...	1,142,000
Less re-exports as Refined	...	...	...	...	...	630,000
Net Imports	...	...	...	...	...	1,497,000

The Minister pointed out that the total purchases of Commonwealth sugar during 1949-50 were in excess of total net imports in the U. K. and amounted to 1,565,000 tons. In order,

however, to keep the freight charges to the minimum, and to supply the Canadian market from its normal Commonwealth sources, the Government diverted some 580,000 tons of these purchases to Canada and other destinations for which it had a responsibility, the remaining 985,000 tons being actually imported into the U. K.

**Table No. 29**  
*Imports and Exports—Board of Trade Returns*

Imports and Exports—Board of Trade Returns							January—December	
Raws							1950	1949
<i>Imports:—</i>								
Union of South Africa	...	...	...	...	...	...	14,913	42,982
Mauritius	...	...	...	...	...	...	167,712	258,096
Australia	...	...	...	...	...	...	250,619	340,116
British West Indies	...	...	...	...	...	...	302,007	275,905
British Guinea	...	...	...	...	...	...	67,087	80,288
Cuba	...	...	...	...	...	...	889,998	733,165
San Domingo	...	...	...	...	...	...	379,358	346,482
<i>Exports (Refined):—</i>								
British West Africa	...	...	...	...	...	...	27,937	22,254
Malaya	...	...	...	...	...	...	92,357	37,192
Ceylon	...	...	...	...	...	...	17,086	8,582
Sudan	...	...	...	...	...	...	50,945	36,357
Switzerland	...	...	...	...	...	...	119,670	44,728
Iraq	...	...	...	...	...	...	56,525	45,183
Iran	...	...	...	...	...	...	125,458	110,648

#### **BEET PRICES INCREASED FOR 1951-52**

Farmers are to get a higher price in 1951 for their sugar beet crop as the result of the annual price review concluded in April, 1951. The price for sugar beet of 15.5% sugar content of the 1951 crop was fixed at 105s. 4d. per ton with addition of 1s. or 2s. a ton in certain factories. As a result of special review the price is to be increased by 2s. 4d. per ton at all factories. The corresponding price for the 1952 crop will be 108s. 8d. per ton (Public Ledger).

#### **CANE MOLASSES PRICE**

With effect from April, 1951 the price for cane molasses for delivery in bulk filled into road or tank wagons is £ 24.10 per ton, an increase of just over £ 15 from the previous selling prices.

#### **BRITISH COMMONWEALTH SUGAR PRICE, 1951**

Following meetings between Commonwealth Sugar producers and the Ministry of Food, agreement has been reached on the price to be paid by the United Kingdom for sugar

imported in 1951 from Commonwealth countries under the Commonwealth Sugar Agreement. The price is to be increased from £ 30, 10 s. to £ 32 17s. 6d. per ton c.i.f., U. K. and it is on the same agreed freight basis as hitherto.

### U. K. RATION INCREASE

From 31st December, 1950, the domestic sugar ration was increased from 8 oz. to 10 oz. per week. This restores the cut made in August, 1949. This increase, together with certain concessions to manufacturers will absorb about 200,000 tons of sugar, which is the expected increase in the U. K. beet crop.

### U. K. INDUSTRIAL USAGE OF SUGAR

Table No. 30

*Allocations for the Calendar year 1951*

	Long tons
Preserves ... ..	194,000
Chocolate and Confectionery ... ..	183,500
Cake and Flour Confectionery ... ..	118,900
Syrup and Treacle ... ..	80,000
Biscuits ... ..	52,600
Brewing ... ..	45,900
Condensed milk ... ..	32,500
Soft drinks (liquid,) ... ..	30,200
Canning ... ..	15,100
Baker's prepared materials ... ..	3,400
Medicinal Preparations ... ..	11,800
Table Jellies ... ..	11,700
Ice cream ... ..	10,400
Coffee Essence ... ..	7,600
Candied Peel ... ..	5,300
Cider ... ..	4,200
Breakfast cereals ... ..	3,800
Pickles and Sauces ... ..	3,500
Lemonade Powders ... ..	3,400
British Wines ... ..	3,200
Cake and Flour Mixtures ... ..	3,000
Medicated Sugar confectionery ... ..	2,000
Miscellaneous ... ..	27,300

## **SUGAR MACHINERY EXPORT INCREASES**

There was a progressive improvement in shipping facilities available for export of sugar machinery during 1949-50, which had done much to overtake the lag in deliveries. Over the past two years, shipments had increased from a little over £2,200,000 in 1947-48 to approximately £3,800,000 in 1949-50, with the result that the large accumulation of orders in hand and plant awaiting shipment had fallen from some £5,500,000 at March, 1948 to around £3,100,000 at March, 1950.

Orders received, however, during the past two years had continued at a high level, averaging over £2,500,005 per annum.

## **JUTE BAG PACKING TO BE DISCONTINUED**

Tate & Lyle Ltd. announced in March, 1951 that pulverized sugar will be packed in one hundredweight paper sacks and the price reduced by 3d. per cwt. The present jute bag packing will be discontinued.

## **SUGAR AGREEMENTS**

### **Extension Of Commonwealth Sugar Agreement**

When the 8-year agreement with British Commonwealth sugar producers was negotiated in the winter of 1949-50, it was agreed that its extension for a further year could be considered each year so that sugar producers would always be able to plan production eight years in advance. In response to the unanimous requests by Commonwealth sugar producers the Government has agreed to the extension of the agreement until the end of 1958.

### **U. K.-CUBA—PROPOSED SUGAR AGREEMENT**

Considerable concern continues to be expressed by British Commonwealth Sugar interests over the proposed Sugar Agreement with Cuba, whereby the United Kingdom would grant Cuba an import quota of 500,000 tons sugar annually for a period of three years. A British Mission led by the Secretary for Overseas Trade visited the British West Indies to discuss this and other allied matters with producing interest there. During the course of the discussions the Secretary gave an assurance that if the Agreement is made with Cuba it will extend only until the end of 1953 and that the U. K. Government will extend to the end of 1953 the undertaking to find a market for the whole of the exportable surplus of Commonwealth sugar up to the limit laid down in the Commonwealth Agreement. Producers would have the option of selling at the world price, plus the preference, that part of the exportable quantity not guaranteed, or of having it included in the quantity to be sold at a negotiated price, as at present. In the event of an agreement with Cuba, producers would be asked to choose between these alternatives. These assurances have done little or nothing to allay the anxiety occasioned amongst Commonwealth producers.

### **NEW ZEALAND-COMMONWEALTH SUGAR AGREEMENT**

Under arrangements made, the Ministry of Food will continue to supply until the end of 1952 all New Zealand requirements of raw sugar at prices to be negotiated each year within the Commonwealth agreement. Therefore from 1953-57 inclusive, New Zealand has agreed to buy 75,000 tons a year Commonwealth Sugar at guaranteed prices. New Zealand will buy

the remainder of her requirements during this period in the world market. Accordingly, Great Britain is prepared to increase by 75,000 tons, i.e., from 1,568,000 tons to 1,643,000 tons, the amount of sugar Great Britain has undertaken to buy each year at guaranteed prices. These arrangements will not affect the aggregate target figure of exports from Commonwealth countries which remains at 2,375,000 tons.

### **B. W. I. AGREEMENT**

The British West Indies Sugar Association has decided to accept the offer made by the British Government to purchase annually 670,000 tons sugar during the years 1953 to 1957 inclusive at an agreed remunerative price. The British West Indies and Br. Guinea thus have an outlet on these terms for a quantity 30,000 tons over and above the 640,000 tons mentioned earlier.

### **U. K. PURCHASE OF DOMINICAN CROP**

It was reported that the President of the Dominican Republic officially approved the contract entered into on October 20, 1950 between the sugar producers and the British Ministry of Food covering the sale of the exportable 1951 Dominican raw sugar crop amounting to 425,000 to 450,000 long tons to the Ministry. The first 100,000 tons have been priced at 4.40 cents f.a.s., the next 50,000 tons at 5.00 cents f.a.s. and then at 4.50 cents f.a.s.

## **FRANCE**

### **RECORD SUGAR PRODUCTION IN 1950-51**

Owing to the extraordinary beet harvest, French sugar production reached the record figure of 1,290,124 metric tons, refined, an increase of 63% over the 793,090 tons, last year. This amount is well in excess of domestic requirements of 1,000,000 tons, and considerable interest is being taken in exports which may be of the order of 200,000 tons to the overseas territories and 100,000 tons to Germany. This will leave enough stocks on hand for a normal carry over of 100,000 tons. As a by-product of sugar production, 450,000 tons of molasses were produced in 1950-51 of which 130,000 are to be exported. Various taxes levied on sugar and agricultural production put the industry in an unfavourable position, and an arrangement has been made through an export association to defray the difference between French and open market prices. However, it is claimed that the removal of the taxes is necessary to permit expansion of exports. The high world market prices have been favourable in the development of the French export trade.

### **FRENCH BEET PLANS**

It is reported that the French Beet Farmers Association has wished to stabilize the area for sugar production at 790,500 acres: (In 1950 an additional 214,900 acres were devoted to the production of beets for alcohol). It is claimed that the aims should be firstly, to meet French domestic requirements and secondly to export sugar in limited quantities.

Table No. 31

*France—Yearly Statistics*

(Metric tons—raw value)

						September—August		
						1949-50	1948-49	1947-48
Production	...	...	...	...	...	880,748	960,156	664,721
Imports	...	...	...	...	...	428,984	406,465	106,738
Opening Stock 1.9	...	...	...	...	...	127,138	7,206	191,111
Deliveries	...	...	...	...	...	1,312,462	1,246,689	955,364
Exports	...	...	...	...	...	187,462	214,552	194,277
Closing Stock 31.8	...	...	...	...	...	124,408	127,138	7,206
Consumption	...	...	...	...	...	1,125,000	1,032,137	761,087

**SOCIAL TAX LOWERED**

The French Parliament has agreed, to lower for 10% the so-called Social Tax on sugar beets which are used for the production of sugar to be exported. This will not apply to sugar beets used for the production of alcohol.

**POLAND****SIX-YEAR SUGAR PLAN**

Plans for a great expansion in production during the next five years have been announced according to the Food and Agricultural Organisation of the U. N. The Polish authorities are apparently convinced either that world sugar prices will remain high or that the system of bilateral trade agreements will enable Poland to obtain satisfactory prices for its sugar exports regardless of what happens to world prices. Reports indicate that the six-year plan for 1950-55 calls for increasing annual production of sugar to one million metric tons, as compared with 694,000 tons in 1948-49. The goal is to be achieved by the expansion of area—and by increased yields. Both area and yields have been increased during the past three or four years. A large part of the increased production is to be consumed locally and it is hoped to raise the domestic per capita consumption which was approximately 19 kgs. in 1949 to 30 kgs. as compared with 13 kgs. pre-war. But domestic consumption will absorb only part of the increased production; the balance is to be exported.

**1950-51 SUGAR PRODUCTION EXCEEDS THE TARGET**

According to an announcement at the Yearly Meeting of the workers of the Polish Sugar Industry, Poland's sugar production in 1950-51 amounted to 955,000 tons. This production exceeds the target for 15 per cent and enabled an increase of the Polish per capita sugar consumption to 25 kilograms. Before the war the per capita sugar consumption was only about 12.5 kilograms. It is planned to reach a sugar production of 1080,000 tons in 1951-52 which was originally planned for 1955, the last year of the six years' plan.



### **NO IMPORT DUTIES**

For import of sugar into Poland, no import duties are levied. The importer, however, has to pay so-called manipulation costs. The consumption tax is levied on beet sugar and glucose.

### **SUGAR EXHIBITION IN HOLLAND**

An exhibition entirely devoted to the subject of sugar, is to be held in the Netherlands in 1952. The idea is to present a visual picture of the product, its processing, and the role played in the prosperity of the nation by the branches of trade and industry connected with sugar. In addition, the exhibition is to show something of the packaging methods applied to sugar. Exhibits are also expected from other countries, mainly in the field of plant and machinery used in sugar processing.

**PART II**  
**INDIAN SUGAR SITUATION**  
**Chapter X**  
**COST OF CULTIVATION AND SUGARCANE STATISTICS**

**A-COST OF CULTIVATION OF SUGARCANE**

**(i) Technical Committee Report not yet Published:**

In July, 1949, the Government of India, in the Ministry of Agriculture constituted a Technical Committee on sugarcane under the Presidentship of Sir. T. S. Vijayaraghavachariar, with the following terms of reference :—

- (a) to enquire into the cost of production of sugarcane in different parts of the country
- (b) to review the progress of cane research and development
- and (c) to suggest ways and means to achieve quicker results increasing the yield of sugarcane per acre and the sugar content of cane with a view to ultimately reducing the cost of production of sugar.

The committee issued a detailed questionnaire on the subject in September, 1949 and on the basis of replies received, submitted an interim report to the Government of India in December, 1949. They gave tentative figures for the cost of production of sugarcane for various states in the Indian union which we are not in a position to divulge at present.

**(ii) Estimates of the State Governments for 1948-49:—**

Due to the varying soil and climatic condition the average yield of cane per acre and its cost of cultivation vary very widely, the differences being 2 or 3 times the over-all averages under certain conditions. No reliable estimates of the cost of cultivation are usually available as generally the cultivator in this country does not maintain any proper accounts. Estimates made by the State Governments are given below in Table No. 32.

**(iii) Estimates of the Indian Central Sugarcane Committee:—**

Recently the Indian Central Sugarcane Committee have also gone into this question and have worked out the average costs of cultivation per acre and the acre yields.

The average cost of cultivation per maund of plant and ratoon cane for each state is given below in Table No. 33.

The following points stand out conspicuously in respect of Uttar Pradesh :—

(a) The overall average cost of cultivation per maund of sugarcane works out to Rs. 1/6/7 though the costs cover a range of -/4/1 for non-irrigated ratoon to Rs. 5/13/9 for well-irrigated plant crop.

(b) The overall yield per acre of sugarcane is 297 maunds, though the range in the yield of sugarcane per acre extends from 54 mds. for well-irrigated ratoon to 752 maunds per acre of canal-irrigated plant crop.

(c) The overall average cost of cultivation per acre of sugarcane is Rs. 403/2/- though the range extends from Rs. 45/- for non-irrigated ratoon to Rs. 1,259/- for well irrigated plant crop.

Table No. 34 shows the overall averages and ranges of variations for different variates.

Table No. 32

Average Cost of Cultivation of Sugarcane Per Acre Under Various Heads During 1948-49

State	Cultural Operation				(d) Harvest- ing and clear- ance	Manur- ing	Irri- gation	Other charges (Includ- ing rent)	Profit on capital blocked	Rs.  Rs.	Mds.  Rs.	Aver- age yield of cane per acre	Aver- age cost per md. includ- ing profit		
	(c) Inter- culture & propping			Rs.										Rs.	Rs.
	(a) Prep. till- age	(b) Seed & Plant- ing	(c) Inter- culture & propping												
1. U. P.	...	Rs. 72/-	Rs. 120/-	Rs. 102/-	Rs. 45/15/-	Rs. 103/-	40/-	54/-	60/-	596/15/-	490	1/4/-			
Western Central	...	Rs. 72/-	Rs. 122/-	Rs. 84/-	Rs. 44/1/-	Rs. 106/-	25/8/-	49/-	60/-	562/9/-	470	1/3/2			
Eastern	...	Rs. 70/-	Rs. 122/-	Rs. 54/-	Rs. 40/5/-	Rs. 94/-	40/8/-	32/-	60/-	512/13/-	430	1/3/1			
2. Bihar	...	Rs. 52/-	Rs. 110/-	Rs. 28/-	Rs. 43/12/-	Rs. 61/-	45/-	152/-	75/-	566/12/-	380	1/7/10			
3. Madras	...	Rs. 36/15/2	Rs. 114/9/8	Rs. 338/3/7	Rs. 158/6/-	Rs. 137/7/5	88/9/9	256/4/-	...	1130/7/7	1053	1/1/2			
4. Bombay	...	Rs. 58/-	Rs. 135/-	Rs. 73/-	...	Rs. 618/-	122/10/-	115/-	30/-	1151/10/-	1120	1/-/6			
5. C. P.	...	Rs. 26/10/-	Rs. 128/14/-	Rs. 24/12/-	Rs. 30/-	Rs. 165/-	113/4/-	15/-	...	503/8/-	300	1/10/10			
6. Orissa	...	Rs. 72/-	Rs. 103/-	Rs. 65/-	Rs. 80/-	Rs. 60/-	200/-	...	...	580/-	500	1/8/-			
7. East Punjab	...	Rs. 56/-	Rs. 83/8/-	Rs. 30/-	Rs. 12/-	Rs. 64/-	15/-	210/8/-	...	471/-	350	1/5/6			
8. West Bengal	...	...	Rs. 90/-	Rs. 25/-	Rs. 30/-	Rs. 130/-	37/-	549/-	...	861/-	528	1/10/1			
								(includ. human labour)							

Table No. 33

*Average Cost of Cultivation Per Maund of Sugarcane During 1948-49*

State and Range	Plant Cane						Ratoon			Overall Average
	C	W	N	C	W	N	C	W	N	
U.P.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
Eastern Range ...	1 15 7 2	1 6 1 14 0	1 7 11 1 4 4	1 4 1 4 1 10 7						
Western Range ...	1 7 0 1 7 0	1 10 11 1 2 8	1 4 0 1 1 3 1 5 6							
Central Range ...	1 7 9 1 7 9	1 8 9 0 14 9 0 9 3 0 11 6 1 2 0								
Uttar Pradesh ...	1 8 2 1 10 2	1 11 11 1 2 0 1 3 9 1 1 8 1 6 3								
Bihar ...	1 10 0 1 15 6	1 14 0 1 7 0 1 14 0 1 9 0 1 11 7								
Madras ...	2 4 1 2 6 11	1 9 0 2 4 11 2 10 8 1 6 8 2 1 9								
Bombay ...	1 4 4 1 3 9	1 2 6 1 1 7 0 14 11 ... 1 2 3								
Adsali										

Table No. 34

State	Variates	Average	Maximum	Minimum
U. P. ...	Yield per acre (Mds.)	297	792	54
	Cost per acre	403 1 8 12,59 0 6	45 0 0	
	Cost per md.	1 6 7 6 7 4	0 4 1	
Bihar ...	Yield per acre	241	402	87
	Cost per acre	441 3 0 947 0 0	13 8 0	
	Cost per md.	1 11 7 4 7 9	0 0 8	
Madras ...	Yield per acre	656	1,316	96
	Cost per acre	1,112 8 0 1,858 0 0	218 8 0	
	Cost per md.	2 3 5 12 4 9	0 7 2	
Bombay ...	Yield per acre	1,142		
	Cost per acre	1,190 0 0 2,050 0 0	432 0 0	
	Cost per md.	1 2 3 ...	...	

In all the states the cost of cultivation per maund and yield per acre depend very much upon the individual care and attention as well as on the soil, climatic and other factors obtaining in the locality.

## CAUSES FOR THE LOW YIELD OF CANE

In spite of the potentially high-yielding, disease-pest-drought-and frost-resistant varieties of cane evolved at Coimbatore and certain other sugarcane research stations, the yield of cane during the last 17 years or so have unfortunately remained stationary between 14 to 15 tons in the main sugar belt in N. India and about 35-40 tons per acre in tropical India. The chief causes are:-

- (1) The extensive rather than intensive methods of cultivation usually adopted for this heavy-feeding crop.
- (2) Lack of adequate facilities and of sufficient quantity of manures and fertilizers to meet the nutritional requirements of the improved varieties of cane.
- (3) Non-availability of sufficient quantity of disease free seeds of quality cane
- (4) non-availability of improved implements necessary for cane cultivation.

## CHIEF HANDICAPS

The non-availability of enough seeds, irrigation water, manures and fertilizers and of such essential materials as iron, bricks and cement for repairing existing and sinking new percolation wells, the high cost of putting up tube-wells, lack of hydro-electric power to run them, small and scattered holdings which are not amenable to consolidation and to the utilization of mechanical cultivation are the chief handicaps which require suitable remedies.

## SOME SUGGESTIONS

- (a) Zoning in all factory areas and greater co-operation and better co-ordination between the factory and cane grower.
- (b) Factory should help the grower with temporary loans for finding the wherewithals required for cane cultivation on improved lines.
- (c) Extension of the results of researches to the doors of the growers.
- (d) Supply of good seeds, more manures and fertilizers, improved implements on subsidised basis either directly or through co-operative cane growers societies.
- (e) A premium of annas -/2/- per maund over the fixed price for early maturing varieties of sugarcane.
- (f) The announcement of sugarcane price in the months of July and August for Adsalh cane and in October or November for the Feb.-March planted cane.

## MAINTENANCE OF REGULAR ACCOUNTS

Attempts should be made to keep regular accounts of cost of cultivation of cane in grower's fields. The accounts might be maintained under the heads:—

- (1) Cultural operations:
  - (i) Preparatory tillage.
  - (ii) Seed and Planting.
  - (iii) Inter-cultivation and Earthing-up.
  - (iv) Harvesting, clearance of fields, tying and popping.
- (2) Manuring.
- (3) Irrigation.
- (4) Other charges.
- (5) Profit on capital blocked in land.
- (6) Rent.

### B-SUGARCANE STATISTICS .

Table No. 35

*Sugarcane Area and Yield of Cane in Terms of Jaggery and Yield per acre in Indian Union*

Year			Area under Sugarcane (thousand acres)	Gross Produc- tion expressed as gur or jaggery (ooo tons)	Yield per acre in terms of Gur	Calculated Production of Sugarcane
1939-40	...	...	3,117	4,006	1.29	39,511
1940-41	...	...	3,985	5,055	1.27	51,157
1941-42	...	...	2,944	3,709	1.26	37,906
1942-43	...	...	3,062	4,439	1.45	45,278
1943-44	...	...	3,602	5,094	1.41	51,908
1944-45	...	...	3,531	4,740	1.34	48,775
1945-46	...	...	3,201	4,552	1.42	46,526
1946-47	...	...	3,528	4,913	1.39	49,769
1947-48	...	...	4,056	5,817	1.43	58,170
1948-49	...	...	3,752	4,869	1.30	48,690
1949-50	...	...	3,624	4,938	1.36	49,380
1950-51	...	...	4,138	5,462	1.32	54,620
1951-52 *	...	...	4,324	5,284	1.22	52,840

\* Estimates.

Table No. 36

*Statewise Acreage and Yield of Sugarcane during 1948-49 to 1950-51*

States	Area ('000 acres)			Yield ('000 tons) in terms of Gur (Raw Sugar)			Yield Per Acre (in Tons) in terms of gur		
	1950-51	1949-50	1948-49	1950-51	1949-50	1948-49	1950-51	1949-50	1948-49
Assam ... ..	58	59	61	59	70	67	1.02	1.19	1.10
Bihar ... ..	411	379	388	309	275	256	.75	.73	.66
Bombay ... ..	188	178	186	543	516	579	2.89	2.90	3.11
Madhya Pradesh ...	47	47	59	57	60	72	1.21	1.28	1.22
Madras ... ..	219	181	176	607	500	533	2.77	2.76	3.03
Orissa ... ..	63	63	62	113	111	120	1.79	1.76	1.94
Punjab (I) ... ..	303	270	306	364	302	346	1.20	1.12	1.13
Uttar Pradesh ... ..	2,495	2,100	2,116	2,897	2,634	2,454	1.16	1.25	1.16
West Bengal ... ..	53	58	66	86	89	106	1.62	1.53	1.61
Hyderabad ... ..	76	71	96	149	146	176	1.96	2.06	1.83
Madhya Bharat ...	40	41	77	37	33	58	.93	.80	.75
Mysore ... ..	39	45	49	59	76	92	1.51	1.69	1.88
PEPSU ... ..	62	55	63	73	61	58	1.18	1.11	.92
Rajasthan ... ..	40	37	35	38	28	31	.95	.76	.89
Saurashtra ... ..	15	10	14	48	15	16	3.20	1.50	1.14
Bhopal ... ..	9	10	12	7	8	11	.78	.80	.92
Delhi ... ..	4	3	8	2	2	5	.50	.67	.63
Himachal Pradesh ...	2	3	3	1	1	1	.50	.33	.33
Kutch ... ..	1	1	* (a)	1	1	1	1.00	1.00	...
Tripura ... ..	5	5	5	6	6	6	1.20	1.20	1.20
Vindhya Pradesh ...	6	6	8	5	3	4	.83	.50	.50
Other States ... ..	2	2	1	1	1	1	.50	.50	1.00
Total ... ..	4,138	3,624	3,791	5,462	4,938	4,993	1.32	1.36	1.32

\* Less than 500 acres.

Table No. 37

*Yield of Cane and Sugar per acre and Recovery in Foreign Countries*

Countries				Tons Cane per acre	Recovery per- cent Cane	Tons Sugar recovered per acre
1.	Cuba	...	...	17.12	12.25	2.095
2.	Louisiana	...	...	19.84	8.06	1.602
3.	Puerto Rico...	...	...	24.16	12.23	2.956
4.	Hawaii	...	...	62.05	10.46	6.489
5.	Trinidad	...	...	...	10.69	...
6.	Mexico	...	...	19.54	9.20	1.817
7.	Martinique	...	...	17.93	8.13	1.458
8.	Haiti	...	...	...	10.92	...
9.	Argentine	...	...	13.05	9.89	1.290
10.	Brazil	...	...	15.68	4.97	0.741
11.	Peru	...	...	41.14	12.33	5.076
12.	Egypt	...	...	30.42	9.97	3.032
13.	Mauritius	...	...	19.63	12.08	2.370
14.	S. Africa	...	...	22.36	10.90	2.439
15.	Reunion	...	...	13.20	10.93	1.390
16.	Java	...	...	56.20	11.49	6.440
17.	Philippines	...	...	27.08	8.45	2.287
18.	Japan and Formosa	...	...	28.27	12.93	3.657
19.	Australia	...	...	21.34	14.33	3.060
20.	India	...	...	14.70	9.50	1.394

*(Source—Report on the Sugar Cane Survey in India-1946).*

Table No. 38

*Statement showing the Percentage Utilisation of Cane Crop for various purposes from 1931-32 to 1949-50*

Season				Total Cane Crop (cal- culated 1,000 tons)	Percentage Cane utilized for:			
					Gur manu- facture	Khandsari	White Sugar	Chewing & Planting
1931-32*	...	...	...	43,316	66.98	11.54	4.12	17.36
1932-33*	...	...	...	51,129	66.66	10.76	6.55	16.03
1933-34*	...	...	...	52,455	68.91	7.63	9.83	13.63
1934-35*	...	...	...	54,346	69.87	5.52	12.28	12.33
1935-36*	...	...	...	61,202	67.17	4.08	16.02	12.73
1936-37*	...	...	...	67,322	61.56	2.97	17.64	17.83



Table No 38 (Contd.)

1937-38	...	...	46,450	59.61	4.13	20.94	15.32
1938-39	...	...	36,066	61.10	4.26	19.10	15.54
1939-40	...	...	39,511	47.89	4.83	32.27	15.01
1940-41	...	...	51,157	55.73	5.99	20.95	17.33
1941-42	...	...	37,906	58.56	4.02	20.29	17.13
1942-43	...	...	45,278	52.76	7.21	22.52	17.51
1943-44	...	...	51,908	55.61	4.41	23.01	16.97
1944-45	...	...	48,775	59.66	3.92	18.90	17.52
1945-46	...	...	46,526	59.57	3.83	19.58	17.02
1946-47	...	...	49,769	62.24	3.24	18.32	16.20
1947-48	...	...	58,170	60.03	3.01	18.76	18.20
1948-49	...	...	48,690	56.81	3.87	20.78	18.54
1949-50	...	...	49,380	55.55	5.91	20.05	18.49

\* For undivided India.

Table No. 39

*Utilization of Sugarcane Crop in India during 1948-49 and 1949-50 as reported by State Governments*  
(Figures in 100 tons)

States	Production of		In Terms of Gur				
	Sugarcane	in terms of Gur	Quantity crushed by Sugar factories	Production of Gur	Estimated Quantity required as sets & Planting	Estimated quantity used for chewing, etc.	Estimated quantity used for other purposes
1	2	3	4	5	6	7	
Assam	...	670	...	670	...	...	...
Bihar	...	2,560	1,787	1,645	783	...	...
Bombay	...	5,790	930	3,314	357	629	...
Madras	...	5,330	616	3,916	374	267	...
Orissa	...	1,200	33	943	120	...	7
Punjab (I)	...	3,460	99	2,360	812	...	...
Hyderabad	...	1,760	236	1,219	...	...	...
Madhya Bharat	...	580	203	24	9	.5	25
Mysore	...	920	382	...	...	...	...
Ajmer	...	10	5	4	...	1	...
Bhopal	...	110	58	...	...	...	...
Delhi	...	50	...	49	...	...	...
Himachal Pradesh	...	10	...	10	...	...	...
Vindhya Pradesh	...	40	...	25	5	.5	...

Table No. 40

*Utilization of Sugarcane Crop in India during Season 1949-50 as reported by State Governments*

(Figures in 100 tons)

		In Terms of Gur					
States		Total produc- tion of Cane in terms of Gur	Quantity Crushed by Sugar Factories	Cane used for gur making	Used for setts and Planting	Used for chewing etc.	Used for other purposes
1		2	3	4	5	6	7
Assam	...	680	...	67	...	...	...
Bihar	...	2,750	2,241	1,642	765	...	...
Bombay	...	4,200	849	2,463	342	524	...
Madras	...	5,360	680	3,814	375	267	...
Orissa	...	1,080	21	863	111	...	...
Punjab (I)	...	3,170	95	3,040	1,047	...	...
Hyderabad	...	1,060	192	556	...	...	...
Madhya Bharat	...	480	152	48	8	.36	...
Ajmer	...	10	4	4	.21	.74	...
Delhi	...	20	...	19	...	...	...
Himachal Pradesh	...	10	...	11	...	...	...
Vindhya Pradesh	...	30	...	21	4	...	.43

Table No. 41

*Total area under Cane Reserved for Sugar Factories with Total Yield and Cane crushed in Uttar Pradesh*

Year				Area under cane Reserved for Factories (in thousand acres)	Total yield in the reserved area (in thous- and tons)	Yield per acre in tons	Total cane crushed by fac- tories from the reserved area (in thousand tons)
1940-41	...	...	...	578.56	Not available	...	5,345
1941-42	...	...	...	731.00	Not available	...	3,876
1942-43	...	...	...	810.15	Not available	...	6,028
1943-44	...	...	...	1037.59	12,034	11.60	7,329
1944-45	...	...	...	929.74	8,796	9.46	5,186
1945-46	...	...	...	877.76	8,890	10.13	5,121
1946-47	...	...	...	959.70	9,465	9.86	5,244
1947-48	...	...	...	1024.56	10,779	10.52	6,123
1948-49	...	...	...	1035.95	10,899	10.52	5,314
1949-50*	...	...	...	1065.69	11,285	10.60	5,278

\* Including Rampur factories which merged in U. P.

Table No. 42

*Percentage of Cane Crushed by Sugar Factories to the total Cane Crop in India during 1948-49 to 1950-51*

States					1948-49	1949-50	1950-51
Uttar Pradesh	...	...	...	...	10.97	10.69	11.05
Bihar	...	...	...	...	3.58	4.54	4.02
Madras	...	...	...	...	1.18	1.31	1.72
Bombay	...	...	...	...	2.05	1.90	1.91
Punjab and PEPSU	...	...	...	...	.48	.27	.42
Madhya Bharat	...	...	...	...	.41	.27	.17
Rest of India	...	...	...	...	1.59	1.07	.81
All India					20.26	20.05	20.10

Table No. 43

*Minimum Price of Sugarcane in U. P. and Bihar from 1935-36 to 1950-51*

Season					Sugarcane price per md.				
1935-36	...	...	...	...	...	0 5 0	to	0 5 6	
1936-37	...	...	...	...	...	0 4 0			
1937-38	...	...	...	...	...	0 5 0	to	0 5 3	
1938-39	...	...	...	...	...	0 3 0	to	0 7 3	
1939-40	...	...	...	...	...	0 5 3	to	0 11 9	
1940-41	...	...	...	...	...	0 4 3	to	0 4 6	
1941-42	...	...	...	...	...	0 5 0			
1942-43	...	...	...	...	...	0 8 0	to	0 10 0	
1943-44	...	...	...	...	...	0 12 0			
1944-45	...	...	...	...	...	0 14 0			
1945-46	...	...	...	...	...	0 14 6			
1946-47	...	...	...	...	...	1 4 0			
1947-48	...	...	...	...	...	2 0 0			
1948-49	...	...	...	...	...	1 10 0	for U. P.		
						1 13 0	for Bihar		
1949-50	...	...	...	...	...	1 10 0	for U. P.		
						1 10 9	for Bihar		
1950-51	...	...	...	...	...	1 12 0			

Table No. 44

*Sugarcane Price During 1950-51*

States				Price per md.	States				Price per md.
				Rs. as. p.					Rs. as. p.
U. P.	...	...	...	1 12 0	Mewar	...	...	...	1 12 0
Bihar	...	...	...	"	Orissa	...	...	...	"
Bombay	...	...	...	"	Bhopal	...	...	...	1 11 0
Punjab	...	...	...	"	Madhya Bharat	...	...	...	"
West Bengal	...	...	...	"	PEPSU	...	...	...	1 13 0
Hyderabad	...	...	...	"	Bikaner	...	...	...	"
Madras	...	...	...	"	Travancore and Cochin	...	...	...	50 0 0
Mysore	...	...	...	"					(per ton)

**MINIMUM CANE PRICE DURING 1951-52**

The minimum prices for sugarcane to be paid during the crushing season 1951-52 are Rs. 1/12/- per maund in the States of Bihar, Bhopal, Bombay, Madras, Orissa, Punjab(I), U.P., West Bengal, Hyderabad, Madhya Bharat and Mysore; Rs. 1/13/- per maund in PEPSU and Rajasthan; and Rs. 50/- per ton in Travancore-Cochin.

Table No. 45

*Arrears of Cane Price against U. P. Factories during 1948-49 and 1949-50*

Number of Factories	Amount of cane price in lakhs of Rupees in 1948-49			Amount of Cane Price in lakhs of Rupees in 1949-50		
	Due	Paid	Balance	Due	Paid	Balance
66	2670.61	2651.97	16.64	1571.14	1390.33	187.61

The arrears for 1948-49 were against 43 factories out of a total of 66 factories in the U. P. and only 7 factories had paid their dues in full for the year 1949-50. The rest were in balance to the tune of Rs. 187.61 lakhs as mentioned above.

**CO-OPERATIVE SOCIETIES' COMMISSION (U. P. AND BIHAR)**  
**PER MAUND OF CANE**

Year							U. P.			Bihar			
1947-48	...	...	...	...	...	...	...	0	0	3	0	0	3
1948-49	...	...	...	...	...	...	...	0	0	9	0	0	7½
1949-50	...	...	...	...	...	...	...	0	0	9	0	0	7½

**SALES TAX ON SUGARCANE IN BIHAR (1949-50)**

With effect from 1st April, 1950, as per amendment to the Bihar Sales Tax Rules (Amendment 1949), a sales tax on sugarcane is imposed as a result of the deletion of the words "in the manufacture of any goods for sale or" in Rule 18. This amounted to double taxation on sugar, sugar being already a subject of taxation in Bihar. The matter for repeal of the tax is under consideration of the Government and the decision is being awaited.

## **Chapter XI**

### **SUGAR PRODUCTION**

#### **TOTAL RATED CAPACITY**

The total annual rated capacity of the sugar industry depends on a number of factors, the most important of which are :—

- (a) Daily cane crushing capacity of each of the factories.
- (b) Duration of the working season in each factory which, in turn, depends on the availability of cane.
- (c) Quality of the cane.
- (d) Efficiency of operation in the factories.
- (e) Working of all the units to capacity.

The rated daily cane crushing capacity of 158 units in 1948-49 was 125,867 tons. On the basis of an average recovery of 10 per cent sugar from cane, the industry should have produced 12,587 tons of sugar per day. Assuming an average working season of 100 working days, the rated capacity of the industry in 1948-49 was 1,258,700 tons of sugar per annum. The capacity will correspondingly increase if we assume a longer average crushing season of 110 or 120 days per annum.

#### **SIZE OF AN ECONOMIC UNIT**

The Report of the Indian Tariff Board (1931, page 62) had stated that a factory with a total crushing capacity for 13 lakh maunds of cane and producing between 4,000 and 4,500 tons of sugar per annum should be regarded as an economic unit under Indian conditions. On the other hand, the Panel on Sugar, Alcohol and Food-Yeast Industries (1946), on the basis of the working of sugar factories during the past 15 years came to the conclusion that a unit with a daily cane crushing capacity of 800 tons should be taken as an economic unit and that all new units should have a daily cane crushing capacity of 800 to 1,000 tons (Report of Panel, para 13, p. 5) Judged by this standard, nearly 80 factories in India at present would have to be regarded as uneconomic units and would require expansion so as to bring the cane crushing capacity of each factory to the level of 800 tons a day.

#### **REASONS FOR THE LAG BETWEEN CAPACITY AND PRODUCTION**

A record production of 12 lakh tons was attained in 1943-44 and there has been a decline thereafter. This decline has been mainly due to an inadequate supply of cane to the factories, which, in turn, has been due to competitive demand from *gur* and *khandisari* sugar producers. Another reason for the low level of production of cane sugar is that some factories have had to close down. In national interest, it is necessary to ascertain the specific reasons responsible for such closures and formulate measures to obviate the same in the future.

In the post-war years the highest production of sugarcane was achieved in 1947-48. The price of cane which is one of the factors in attracting supplies of cane to the factory, was increased to an abnormal level of Rs. 2 per maund immediately after decontrol of sugar in December, 1947. In spite of this, the production of sugar came to only 10.75 lakh tons during 1947-48. During 1948-49 and 1949-50 there has been no increase in the production of sugar inspite of various measures adopted by Government for maximising sugar production. As explained one of the reasons for the downward trend in production was that, as against 158 sugar factories capable of manufacturing sugar, only 137 factories were in actual production during 1948-49 and 139 during 1949-50.

### MEASURES TO INCREASE PRODUCTION

In prescribing remedies for bridging the gap between rated capacity and actual production, it is essential to bear in mind certain important aspects of the sugar industry viz., its dependence on agriculture for raw materials, the limited time within which cane should be crushed by the factories and the consequent limitation upon its transport over long distances. Sugar factories cannot, therefore, be concentrated in a few places as in the case of the textile industry and have necessarily to be erected in areas where sugarcane can be conveniently cultivated. Further, the sugar industry is a seasonal industry in the sense that a sugar factory can work only for a limited period during the year, and that, too provided cane is made available during the period in adequate quantities.

The following measures are suggested by the planning commission for achieving increased production of sugar:

(a) *Shifting of factories to better locations*—Unsuitable location of sugar factories and an excessive concentration of factories in a small area lead to difficulties in the supply of sugarcane. The Tariff Board in its Report (1950) recommended to the Government of U. P. and Bihar that they should carefully examine the possibility of shifting some of the factories to suitable localities so that they can work to their full production capacity. It may be mentioned that, if the 19 factories which did not operate during 1949-50 mainly due to difficulties in the supply of cane could be enabled to overcome these difficulties, the production of sugar would increase by about 80,000 tons on the basis of 100 working days and by about 1 lakh tons on the basis of 120 working days.

(b) *Increasing the number of working days*—The production of Sugar can also be increased if the crushing season of the sugar industry is increased to at least 120 days. The increase in production of sugar thus to be attained will be substantial because the U. P. and Bihar factories, which account for 75 per cent of total sugar production, have been working in recent years for about 100 days and 80/90 days respectively. For example, in 1948-49, if all the 65 factories in operation in U. P. had worked for 120 days instead of 98 days, the production would have increased in that State by about 1 lakh tons on the basis of the actuals for that year. Similarly if the 29 factories in operation in Bihar worked for 100 days instead of 84 days, production in 1948-49 would have been stepped up by 35,000 tons. On the other hand, if a period of 120 days is assumed, production would have been increased in Bihar by 79,000 tons. Madras with a production of 51,000 tons on the basis of 107 working days, would have yielded an additional 6,500 tons on the basis of 120 working days.

If all the 158 factories with the total daily cane crushing capacity of about 125,867 tons had worked for 120 days, the total yield of sugar on the basis of 10 per cent recovery would be about 15.0 lakh tons. On the other hand, if for Bihar factories, an average season of 100 days is assumed, and 129 working days for others, the yield of sugar would be 14.5 lakh tons.

In discussing the question of an increase in the duration of the crushing season, we have to bear in mind the limiting factor, viz., the quantity of cane available. At present in the principal sugar producing areas, viz., U. P. and Bihar, the sugar factories are in a position to obtain only about 22.2 per cent and 44.3 per cent, respectively, of the total sugarcane produced. To achieve the production of an extra 2.0 lakh tons of sugar by extending the crushing season, it will be necessary to divert an additional quantity of about 10 per cent of the total cane to the factories both in U. P. and in Bihar and other areas. This, in turn, depends on intensive cane cultivation with special regard to the type of cane that should be grown in U. P. and in Bihar. It has been found that the area under different varieties—early, medium and late maturing—is not suitably apportioned in U.P. and Bihar. The result is that in the earlier part of the season, i.e., in November, it is not possible for the factories to get cane which may be sufficiently mature. Also, in the latter part of the season the cane generally dries up and there is not sufficient quantity of cane of a late maturing type fit for crushing in the latter part of the season. It is thus essential that cane cultivation must be directed in such manner as will enable the factories to get cane suitable for crushing throughout the period from the beginning of November till the end of May.

(c) —*Research and development of cane cultivation*—The cess levied on the sugarcane crushed by the factories amounts to a considerable sum and this should be the source for financing research with which the prosperity of the agriculturist and that of the sugar industry are closely linked.

Unless the yield of sugarcane per acre and the sucrose content of the cane are raised and the crushing season extended as a result of researches into the various aspects of sugarcane cultivation and production, the sugar industry might find it difficult to bring down the costs of production appreciably. In this connection it may be pointed out that, during the past 11 years, the U. P. Government collected Rs. 10,78 lakhs from cane cess and spent only Rs. 1,72 lakhs for cane development work; similarly, during the same period, the Bihar Government collected Rs. 2,79 lakhs and spent only Rs. 1,45 lakhs, for such work. These figures show that the Governments of U. P. and Bihar can and should contribute larger amounts for development work in their own areas, besides the sums allotted by the Centre to the Indian Central Sugarcane Committee, every year.



Table No. 46

*Rated Capacity of Indian Sugar Factories*

States			No. of factories	Maximum (Tons per day of Cane crush)	Minimum per factory	Average	Annual capacity of Sugar production 100 days season Tons
West Bengal	...	...	2	750	75	475	9,500
Bihar	...	...	30	1,800	100	936	280,800
U. P.	...	...	69	1,950	80	945	652,050
Punjab	...	...	1	400	400	400	4,000
Orissa	...	...	2	250	110	180	3,600
Madras	...	...	13	2,200	30	558	72,540
Bombay	...	...	15	1,250	200	648	97,200
Chief Commissioner's States	...	...	2	750	350	550	11,000
Kashmir	...	...	1	600	600	600	6,000
PEPSU	...	...	2	1,800	850	1,325	26,500
Mysore	...	...	1	1,400	1,400	1,400	14,000
Madhya Bharat	...	...	6	750	300	533	31,980
Rajasthan	...	...	2	600	500	550	11,000
Hyderabad	...	...	3	1400	275	838	25,140
Saurashtra	...	...	1	375	375	375	3,750
United States of Travancore & Cochin	...	...	1	500	500	500	5,000
Vindhya Pradesh	...	...	1	100	100	100	1,000
Total							12,55,060

Table No. 47

*No. of Factories working during 1944-45 to 1950-51*

States			1944- 45	1945 - 46	1946- 47	1947- 48	1948- 49	1949- 50	1950- 51
Punjab (I)	...	...	1	1	1	1	1	1	1
Uttar Pradesh	...	...	69	69	67	65	67	66	67
Bihar	...	...	29	29	29	29	29	30	29
Madras	...	...	11	11	11	11	10	11	12
Bombay	...	...	14	14	13	14	14	14	15
West Bengal	...	...	1	2	2	1	1	1	1
Orissa	...	...	1	1	1	1	1	2	1
Assam	...	...	...	...	...	1	...	...	...
Bhopal	...	...	1	1	1	1	1	1	1
Ajmer	...	...	...	...	...	...	1	1	...
Madhya Bharat	...	...	4	4	4	4	5	5	5
Mysore	...	...	1	1	1	1	1	1	1
Travancore & Cochin	...	...	...	...	...	...	1	1	1
PEPSU	...	...	1	2	2	2	2	2	2
Rajasthan	...	...	1	1	1	1	2	2	1
Saurashtra	...	...	...	...	...	1	...	...	...
Jammu and Kashmir	...	...	1	1	1	...	...	...	...
Hyderabad	...	...	1	1	1	1	1	1	1
All India			136	138	135	134	137	139	138

Table No. 48

*Dates of Commencement of Cane crushing seasons 1950-51 & 1949-50*

Dates of Starting	Number of factories											
	Season 1950-51						Season 1949-50					
	UP	Bi-har	Mad-ras	Bom-bay	Rest of India	All India	UP	Bi-har	Mad-ras	Bom-bay	Rest of India	All India
Before 4th Oct.	...	...	...	...	...	1	1	...	...	...	1	1
4th to 31st Oct.	...	...	...	...	1	1	2	...	...	...	2	2
1st to 7th Nov.	...	...	1	1	1	3	...	...	...	2	...	2
8th to 14th Nov.	...	13	1	...	...	2	16	...	...	1	1	2
15th to 21st Nov.	...	13	4	1	2	20	3	...	...	1	...	4
22nd to 28th Nov.	...	5	8	2	5	22	3	2	...	2	...	7
29th Nov. to 5th Dec.	...	14	5	3	3	26	26	9	1	5	1	42
6th to 12th Dec.	...	9	4	...	...	14	19	5	1	...	7	32
13th to 19th Dec.	...	9	3	3	...	15	12	9	3	1	1	26
20th to 26th Dec.	...	2	2	...	1	2	7	...	2	1	2	6
27th Dec. to 2nd Jan.	...	1	...	1	2	4	8	3	2	1	...	10
3rd. to 16th Jan.	...	1	1	...	...	1	3	...	1	...	...	1
17th to 30th Jan.	...	...	...	1	...	1	...	...	2	...	...	2
After 30th Jan. ...	...	...	...	...	...	...	...	...	1	...	1	2
Total	...	67	29	12	15	15	138	66	30	11	14	139

Table No. 49

*Dates of Closing of Cane crushing seasons 1950-51 & 1949-50*

Dates of Closing	Number of Factories											
	Season 1950-51						Season 1949-50					
	UP	Bi-har	Mad-ras	Bom-bay	Rest of India	All India	UP	Bi-har	Mad-ras	Bom-bay	Rest of India	All India
Before 18th Feb.	...	1	1	...	...	4	6	1	...	...	...	6
18th Feb. to 3rd March	...	7	5	...	2	2	16	11	2	1	...	20
4th to 17th March	...	16	6	1	...	5	28	19	3	1	1	25
18th to 24th March	...	7	5	...	...	...	12	14	2	...	3	19
25th to 31st March	...	4	1	1	1	...	7	5	5	...	...	10
1st to 7th April	...	19	3	...	2	2	26	9	4	5	2	22
8th to 14th April	...	6	1	...	1	...	8	6	3	1	...	11
15th to 21st April	...	3	2	1	1	...	7	...	4	1	4	9
22nd to 28th April	...	2	1	1	3	1	8	1	4	...	1	6
29th April to 5th May	...	...	1	1	...	...	2	...	1	...	1	2
6th to 12th May	...	1	...	2	3	1	7	...	...	...	1	1
13th to 19th May	...	1	2	...	1	...	4	...	2	...	1	4
20th to 26th May	...	...	1	1	...	...	2	...	...	...	...	...
After 26th May	...	...	...	4	1	...	5	...	...	2	...	3
Total	...	67	29	12	15	15	138	66	30	11	14	139

Table No. 50

*Duration of Season—Statewise*

States				1944- 45	1945- 46	1946- 47	1947- 48	1948- 49	1949- 50	1950- 51
Punjab (I)	...	...	...	111	97	109	177	136	117	139
Uttar Pradesh	...	...	...	111	107	113	131	110	102	117
Bihar	...	...	...	92	94	88	89	100	115	115
Madras	...	...	...	141	143	130	146	117	105	172
Bombay	...	...	...	147	130	158	165	164	137	144
West Bengal	...	...	...	106	65	77	111	95	71	60
Orissa	...	...	...	118	96	99	150	140	56	135
Assam	...	...	...	...	...	...	39	...	...	...
Bhopal	...	...	...	71	71	73	101	114	97	69
Ajmer	...	...	...	...	...	...	...	76	52	...
Madhya Bharat	...	...	...	101	102	111	138	114	83	59
Mysore	...	...	...	232	182	191	238	354	198	141
Travancore & Cochin	...	...	...	...	...	...	...	75	87	85
PEPSU	...	...	...	115	89	89	140	83	65	110
Rajasthan	...	...	...	163	140	115	167	132	63	47
Saurashtra	...	...	...	...	...	...	96	...	...	...
Jammu and Kashmir	...	...	...	51	65	55	...	...	...	...
Hyderabad	...	...	...	205	217	201	229	226	184	211
All India				114	109	114	128	116	107	122

Table No. 51

*Actual No. of Working Days during 1944-45 to 1950-51*

States				1944- 45	1945- 46	1946- 47	1947- 48	1948- 49	1949- 50	1950- 51
Punjab (I)	...	...	...	111	97	109	177	136	117	133
Uttar Pradesh	...	...	...	98	95	99	116	97	90	101
Bihar	...	...	...	78	79	70	76	84	98	97
Madras	...	...	...	128	118	111	126	106	95	138
Bombay	...	...	...	124	111	121	135	136	116	117
West Bengal	...	...	...	91	54	58	94	80	66	57
Orissa	...	...	...	105	88	85	137	125	43	95
Assam	...	...	...	...	...	...	14	...	...	...
Bhopal	...	...	...	53	53	65	90	90	90	63
Ajmer	...	...	...	...	...	...	...	36	37	...
Madhya Bharat	...	...	...	71	69	71	99	87	62	45
Mysore	...	...	...	232	182	n.a.	173	341	186	23
Travancore & Cochin	...	...	...	...	...	...	...	65	74	72
PEPSU	...	...	...	105	61	52	125	76	25	67
Rajasthan	...	...	...	125	99	82	n.a.	115	40	27
Saurashtra	...	...	...	...	...	...	95	...	...	...
Jammu and Kashmir	...	...	...	41	46	53	...	...	...	...
Hyderabad	...	...	...	175	185	169	198	183	138	187
All India				99	94	98	110	101	92	101

n. a. not available.

Table No. 52

*Maximum, Minimum and Average Duration of Season of Sugar Factories in the Indian Union*

Season	Working Days	U. P.	Bihar	Bombay	Madras	Madhya Bharat	All India
1947-48 ...	<div> Maximum Minimum Average </div>	187 55 116	114 51 76	174 98 139	186 51 137	134 78 99	198 14 110
1948-49 ...	<div> Maximum Minimum Average </div>	163 52 97	115 48 85	189 104 136	140 48 116	109 73 87	341 36 101
1949-50 ...	<div> Maximum Minimum Average </div>	129 62 90	134 46 98	144 78 116	162 46 89	105 31 62	186 12 92
1950-51 ...	<div> Maximum Minimum Average </div>	152 47 101	171 19 97	162 78 117	330 46 138	... ... 45	330 19 101

Table No. 53

*Cane Crush Per Day of 24 Hours in India*

Average and Maximum amount of Cane crushed (per day of 24 hours operation) calculated on the basis of tons of Cane crushed per day of actual work only in India

Year		Average	Maximum	Year		Average	Maximum
		Tons	Tons			Tons	Tons
1934-35	...	517	2,012	1943-44	...	708	1,903
1935-36	...	568	1,807	1944-45	...	681	1,940
1936-37	...	630	1,960	1945-46	...	697	1,927
1937-38	...	660	2,000	1946-47	...	728	1,967
1938-39	...	630	1,850	1947-48	...	742	1,877
1939-40	...	710	1,960	1948-49	...	740	1,957
1940-41	...	690	1,980	1949-50	...	776	2,203
1941-42	...	640	1,800	1950-51	...	790	1,955
1942-43	...	690	1,920				

Table No. 54

*Quantity of Cane crushed (Statewise) during 1944-45 to 1950-51*

States	1944-45 (ooo tons)	1945-46 (ooo tons)	1946-47 (ooo tons)	1947-48 (ooo tons)	1948-49 (ooo tons)	1949-50 (ooo tons)	1950-51 (ooo tons)
Punjab (I) ...	78	66	79	125	99	95	114
Uttar Pradesh ...	5,440	5,254	5,488	6,476	5,476	5,278	6,038
Bihar ...	1,589	1,683	1,470	1,606	1,787	2,241	2,194
Madras ...	510	549	596	686	587	648	972
Bombay ...	874	822	777	991	1,024	937	1,045
West Bengal ...	46	43	46	48	41	32	32
Orissa ...	24	21	22	35	33	21	26
Assam ...	...	...	...	*	...	...	...
Bhopal ...	36	36	37	53	58	53	45
Ajmer ...	...	...	...	...	4	3	...
Madhya Bharat ...	127	140	130	181	203	126	95
Mysore ...	178	161	158	189	318	176	25
Travancore and Cochin ...	...	...	...	...	17	22	43
PEPSU ...	75	103	90	230	141	42	115
Rajasthan ...	38	37	34	54	93	35	19
Saurashtra ...	...	...	...	8	...	...	...
Jammu & Kashmir ...	8	12	11	...	...	...	...
Hyderabad ...	197	182	179	228	236	192	252
All India ...	9,220	9,109	9,117	10,911	10,117	9,901	11,016

\* The factory crushed only 219 tons.

Table No. 55

*Statewise Percentage of Gate Cane and Rail Cane crushed by Sugar Factories during the years 1948-49 to 1950-51*

States	1948-49		1949-50		1950-51	
	% Gate Cane	% Rail Cane	% Gate Cane	% Rail Cane	% Gate Cane	% Rail Cane
West Bengal ...	89.16	10.84	85.62	14.38	93.89	6.11
Bihar ...	74.36	25.64	60.31	39.69	60.10	39.90
Uttar Pradesh ...	73.98	26.02	66.37	33.63	62.10	37.90
Punjab (I) ...	64.30	35.70	68.10	31.90	59.09	40.91
Orissa ...	79.91	20.09	60.93	39.07	62.73	37.27
Madras ...	76.09	23.91	100.00	nil	98.51	1.49
Bombay ...	86.23	13.77	98.85	1.15	99.51	.49
Part 'C' States ...	45.14	54.86	54.90	45.10	55.80	44.20
PEPSU ...	89.86	10.14	61.72	38.28	59.87	40.13
Mysore ...	100.00	nil	44.83	55.17	33.15	66.85
Madhya Bharat ...	81.13	18.87	64.45	35.55	55.05	44.95
Rajasthan ...	49.66	50.34	50.06	49.94	56.07	43.93
Hyderabad ...	100.00	nil	58.30	41.70	56.28	43.72
All India ...	73.55	26.45	69.95	30.05	68.07	31.93

**Table No. 56**  
*Statwise Production of White Sugar by Vacuum Pan Factories in Indian Union during*  
 1944-45 to 1950-51 (100 tons)

States	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51
Uttar Pradesh ...	5,552	5,296	5,506	6,335	5,435	5,086	5,921
Bihar ...	1,699	1,766	1,482	1,685	1,849	2,221	2,251
Bombay ...	948	916	1,808	1,101	1,127	1,110	1,214
Madras ...	465	492	487	593	550	617	909
Punjab (I) ...	82	67	80	123	97	93	111
West Bengal ...	48	44	44	52	44	34	36
Orissa ...	26	21	23	35	34	19	26
Madhya Bharat ...	118	132	118	156	189	115	88
Mysore ...	173	175	161	174	273	168	20
Hyderabad ...	177	164	164	198	212	198	242
PEPSU ...	65	86	65	194	117	25	94
Rajasthan ...	32	31	32	49	82	31	15
Saurashtra ...	...	...	...	5	...	...	...
Travancore & Cochin ...	...	...	...	...	12	19	36
Kashmir ...	6	8	8	...	...	...	...
Bhopal ...	31	31	33	48	53	49	42
Ajmer ...	...	...	...	...	2	2	...
<b>All India ...</b>	<b>9,422</b>	<b>9,229</b>	<b>9,011</b>	<b>10,748</b>	<b>10,076</b>	<b>9,786</b>	<b>11,005</b>

**Table No. 57**  
*Production of Molasses during 1944-45 to 1950-51*  
 (In 100 tons)

States	1944-45	1945-46	1946-47	1947-48	1948-49	1949-50	1950-51
Punjab (I) ...	...	22	19	20	42	30	30
Uttar Pradesh ...	...	1,830	1,809	1,789	2,365	1,901	1,837
Bihar ...	...	539	599	488	546	631	788
Madras ...	...	209	233	275	302	249	273
Bombay ...	...	344	322	312	379	397	341
West Bengal ...	...	19	17	20	20	16	13
Orissa ...	...	12	10	9	18	16	11
Assam ...	...	...	...	...	*	...	...
Bhopal ...	...	17	17	18	23	25	22
Ajmer ...	...	...	...	...	2	3	...
Madhya Bharat ...	...	46	51	49	75	85	50
Mysore ...	...	75	64	68	108	179	96
Travancore & Cochin ...	...	...	...	...	10	12	21
PEPSU ...	...	27	43	39	101	59	21
Rajasthan ...	...	17	18	13	24	43	15
Saurashtra ...	...	...	...	4	...	...	...
Jammu and Kashmir ...	...	3	5	4	...	...	...
Hyderabad ...	...	78	75	78	101	89	62
<b>All India ...</b>	<b>3,238</b>	<b>3,282</b>	<b>3,182</b>	<b>4,108</b>	<b>3,732</b>	<b>3,574</b>	<b>3,952</b>

\* The Factory produced only 11 tons Molasses.

Table No. 58

*Recovery of Sugar (Statewise) in the Indian Union during 1944-45 to 1950-51*

States		1944- 45	1945- 46	1946- 47	1947- 48	1948- 49	1949- 50	1950- 51	Average Recovery
Uttar Pradesh	...	10.21	10.08	10.03	9.78	9.93	9.64	9.81	9.93
Bihar	...	10.69	10.49	10.08	10.49	10.34	9.91	10.26	10.32
Bombay	...	10.85	11.15	10.39	11.11	11.00	11.84	11.61	11.14
Madras	...	9.11	9.86	8.17	8.65	9.37	9.51	9.35	9.15
West Bengal	...	10.33	10.41	9.64	10.88	10.69	10.55	11.25	10.54
Orissa	...	10.65	10.05	10.37	9.70	10.42	9.22	9.76	10.02
Punjab	...	10.52	10.12	10.22	9.80	9.77	9.73	9.77	9.99
Madhya Bharat	...	9.27	9.45	9.02	8.60	9.29	9.05	9.22	9.13
Mysore	...	9.74	10.85	10.18	9.18	8.57	9.54	8.18	9.46
Hyderabad	...	9.00	9.00	9.15	8.70	9.00	10.34	9.59	9.25
PEPSU	...	8.78	8.36	7.28	8.45	8.32	5.92	8.16	7.90
Rajasthan	...	8.52	8.39	9.53	9.13	8.81	8.81	8.14	8.76
Kashmir	...	6.93	6.77	7.12	...	...	...	...	...
Travancore & Cochin	...	...	...	...	...	7.37	8.95	8.21	8.18
Bhopal	...	8.65	8.65	9.00	9.09	9.06	9.14	9.51	9.01
Ajmer	...	...	...	...	...	5.34	6.29	...	...
Saurashtra	...	...	...	...	6.37	...	...	...	...
All India	...	10.22	10.13	9.88	9.85	9.96	9.88	9.99	9.99

Table No. 59

*Production of Molasses % Cane during 1944-45 to 1950-51*

States		1944- 45	1945- 46	1946- 47	1947- 48	1948- 49	1949- 50	1950- 51
Punjab (I)	...	2.77	2.96	2.51	3.35	3.05	3.21	3.16
Uttar Pradesh	...	3.36	3.44	3.26	3.65	3.47	3.48	3.43
Bihar	...	3.39	3.56	3.32	3.40	3.53	3.52	3.54
Madras	...	4.09	4.24	4.61	4.41	4.23	4.20	4.38
Bombay	...	3.94	3.91	4.02	3.82	3.87	3.64	3.61
West Bengal	...	4.11	3.91	4.28	4.08	3.89	4.07	4.35
Orissa	...	4.79	4.78	4.10	5.02	4.96	5.46	5.11
Assam	...	...	...	...	5.02	...	...	...
Bhopal	...	4.74	4.74	4.35	4.35	4.33	4.04	3.68
Ajmer	...	...	...	...	...	4.87	6.11	...
Madhya Bharat	...	3.66	3.67	3.73	4.15	4.17	3.92	3.70
Mysore	...	4.23	3.96	4.29	5.71	5.63	5.44	5.38
Travancore & Cochin	...	...	...	...	...	6.03	5.50	4.85
PEPSU	...	3.62	4.16	4.36	4.40	4.17	5.11	4.24
Rajasthan	...	4.51	4.97	3.79	4.58	4.65	4.45	4.91
Saurashtra	...	...	...	...	4.50	...	...	...
Jammu and Kashmir	...	3.51	3.96	3.89	...	...	...	...
Hyderabad	...	3.95	4.13	4.37	4.44	3.77	3.26	3.73
All India	...	3.51	3.60	3.49	3.76	3.69	3.61	3.59

Table No. 6o

*Production of White Sugar Refined from Gur in Indian Union*

Year *	No. of Refineries working	Gur melted in tons	Sugar produced in tons	Molasses produced in tons	Recovery of sugar % Gur	Produc- of molas- ses % gur
1932 ...	17	1,26,251	69,590	46,636	55.10	36.90
1933 ...	27	1,51,269	80,106	56,239	52.95	37.17
1939 ...	10	23,300	14,200	5,400	60.94	27.46
1940 ...	11	50,800	29,600	15,800	58.26	31.10
1941 ...	14	87,300	48,500	32,000	55.55	36.65
1942 ...	11	21,700	13,400	7,600	61.80	35.00
1943 ...	5	9,860	6,370	2,680	64.60	27.18
1944 ...	4	13,440	7,980	3,850	59.38	28.65
1945 ...	3	9,357	6,030	2,354	64.42	25.21
1946 ...	3	5,846	3,754	1,676	64.21	28.52
1947 ...	1	2,820	1,750	825	62.06	29.25
1948 ...	6	12,006	6,500	4,505	54.11	37.52
1949 ...	2	3,791	2,200	1,342	57.45	35.41
1950 ...	0	...	...	...	...	...
1951 ...	2	...	160	...	...	...

\* Calendar year.

Table No. 61

*Production of Sugar in the Indian Union by Cane Factories, Gur Refineries and Khandseries (Nov.-Oct.)*

Year	No. of Factories producing sugar di- rectly from Cane	Produc- tion of sugar di- rect from Cane (Tons)	No. of Refineries	Produc- tion of sugar re- fined from Gur (Tons)	Produc- tion of Khand- sari sugar (Tons)	Total produc- tion of sugar (Tons)
1936-37 ...	129	1,089,970	8	25,400	92,150	1,205,520
1937-38 ...	131	914,580	10	17,200	115,190	1,046,970
1938-39 ...	132	642,160	10	14,700	92,150	749,010
1939-40 ...	138	1,207,800	11	26,500	114,510	1,348,810
1940-41 ...	140	1,046,100	13	42,030	183,810	1,271,940
1941-42 ...	141	751,400	10	19,870	91,480	862,750
1942-43 ...	141	1,051,800	5	7,800	195,870	1,255,470
1943-44 ...	145	1,200,650	4	7,700	137,330	1,345,680
1944-45 ...	136	942,200	3	6,400	114,700	1,063,300
1945-46 ...	138	922,900	3	4,100	106,800	1,033,800
1946-47 ...	135	901,100	1	1,750	96,700	999,550
1947-48 ...	134	1,074,800	6	5,500	105,000	1,185,300
1948-49 ...	137	1,007,600	2	3,000	113,000	1,123,600
1949-50 ...	139	978,600	2	400	175,000	1,154,000
1950-51 ...	138	1,100,500	2	160	125,000	1,225,660



### QUALITY OF SUGAR

Taking both colour and grain size into consideration, it may be noted that ISS-28D accounted for the largest production for any single quality for the two seasons 1950-51 and 1949-50. The percentage of total production of ISS-28-D during 1950-51 was 33.60 as against 28.28 during 1949-50.

According to the Review of the quality of sugar published by the Bureau of Sugar standards at the Indian Institute of Sugar Technology, the main features of the quality of sugar produced during 1950-51 were as follows:—

- (1) Production of ISS-29 and 28 has appreciably increased over 1949-50.
- (2) Production of ISS-27 and 26 has decreased to some extent.
- (3) ISS-28-D was the most prominent quality of sugar and its production in 1950-51 has increased to a marked degree.
- (4) Although colour standards below ISS-26 have been dropped from the schedule of Indian Sugar Standards since 1949-50, a few factories still continued to produce them.
- (5) The position regarding production of too many grades by some factories still continued.

The following table gives the percentages of the various grades [of sugar on the total production for the season 1950-51.

Table No. 62

*Production of White Sugar Corresponding to Different Standard Quality (I. S. S.) during season 1950-51*

Grain/Colour				29	28	27	26	Total 1950-51	Total 1949-50
				%	%	%	%	%	%
B	...	...	...	1.8	1.3	0.2	...	3.2	2.4
C	...	...	...	4.9	4.9	5.3	0.2	15.3	15.9
D	...	...	...	3.4	33.6	13.0	0.9	50.8	50.6
E	...	...	...	2.7	15.2	10.3	0.4	28.7	28.2
Total Season 50-51	...	...	...	13.4	55.9	28.9	1.6	...	...
Total Season 1949-50	...	...	...	9.2	49.1	37.7	3.0	...	100.0

(i) *Colour*—From table it will be observed that the production of ISS 29 has increased from 9.18% in 1949-50 to 13.35% in 1950-51 and that of ISS 28 from 49.12% to 55.9% which is a marked improvement. Correspondingly there is a decrease in the production of ISS 27, & 26, from the previous season, the decrease being from 37.7% to 28.89% for ISS 27 and from 2.98% to 1.58% for ISS 26. Although colour standards below ISS 26 have been dropped from the schedule of Indian Sugar Standards since 1949-50, a few factories still continue to report production in ISS 25 and 24. The production, however,

being negligible in these grades, i.e., 0.1% for ISS 25 and 0.02% for ISS 24. As in the previous season, ISS 28 accounts for the highest production this year also, and in a more marked degree, i.e., more than 55% of the total production is in this colour grade. The bulk of production is represented by three colour grades, viz., ISS 29, 28 and 27 as in the previous season, which covers 98.14% of the total this year, as shown below :

ISS Nos.				29	28	27	26
1950-51	Percent production ...	...	...	13.35	55.90	28.89	1.58
1949-50	Percent production ...	...	...	9.19	49.13	37.74	2.98

(ii) *Grain Size*—Production of sugar in different ISS grain sizes does not show any marked deviation from that of the last season, i.e., 1949-50. Production under ISS B shows a slight increase over the last season, i.e., from 2.41% to 3.24% in all other cases it is practically the same as in 1949-50. The ISS D grain accounts for the highest production, i.e., 50.84% this season also, as for the past five or six seasons. As in the previous year, the bulk of production is represented by grain sizes C, D and E which account for nearly 95 percent of the total production as shown below :

ISS Grain Size				C	D	E	F
1950-51	Percent production ...	...	...	15.32	50.84	28.68	0.73
1949-50	Percent production ...	...	...	15.89	50.64	28.15	1.02

### CRUSHED SUGAR

The production of crushed sugar has been progressively decreasing for some years and has gone down still further this season, the decrease being from 0.24% in 1949-50 to only 0.09% in 1950-51. The production of crushed sugar is almost negligible and is reported by five factories only.

### UNGRADED SUGAR

The percentage of ungraded sugar (Rori, dust, and other miscellaneous) shows a decrease from 0.30% in 1949-50 to 0.07% in the season 1950-51.

The Indian Tariff Board of 1950 have rightly observed that the organisation which has been chiefly responsible for stipulating sugar standards and advising the factories to conform to the specifications as laid down by it is the Bureau of Sugar Standards at the Indian Institute of Sugar Technology. Twelve years ago, the quality of the Indian Sugar was poor as compared with imported sugar. However, with the improvements effected in technical efficiency, the quality of sugar has steadily improved.

## ***Chapter XII***

### **COST OF PRODUCTION AND PRICE OF WHITE SUGAR**

#### **MACHINERY AND METHOD OF PRICE FIXATION**

Until April, 1942, the price of different qualities of sugar was fixed by the Indian Sugar Syndicate taking into consideration the ruling market conditions. The price thus fixed was the minimum price and factories in U. P. and Bihar were forbidden from selling sugars at price below the rate though there was no restriction for selling sugar at a higher level.

The U. P. and Bihar Governments used to fix a minimum price for sugar cane on the basis of sugar price fixed by the Sugar Syndicate. In order to work out a fair price of sugar cane, a schedule was prepared by Shri R. C. Srivastava, the then Director of the Indian Institute of Sugar Technology. In fixing the sugar cane price in any particular year, the probable length of the crushing season was at first determined and on that basis, the manufacturing charges were fixed according to Srivastava's Schedule. These manufacturing charges were subtracted from the price of sugar of standard quality as fixed by the Sugar Syndicate and thus was found out the balance which would fix the limit to the price of sugar cane.

The above procedure of fixing the price of sugar cane and of sugar was altogether changed when Central Control was imposed on sugar in April, 1942. The U. P. and Bihar Governments fixed at first the minimum price for sugar cane. To this were added the basic manufacturing charges as given in the Srivastava's Schedule and also certain additional manufacturing charges based on increases in the cost of materials and wages of labour, as also the excise duty, and then the fair ex-factory price of sugar of standard quality was arrived at for the purpose of price fixation by the Central Government. It may be noted that though the price fixed was an all-India price, the calculation was based on the cost of cane including cane cess and Co-operative Societies Commission, levels of wages, availability of cane supply, the duration of the crushing season and the recovery of sugar percent cane of Sugar Factories in the two provinces of U. P. and Bihar only. In these two provinces an elaborate system of control was introduced under the U. P. and Bihar Sugar Factories Control Acts. For the purpose of this control, the two Governments set up a Joint Sugar Commission as well as a Joint Sugar Control Board. The function of the commission was to make recommendations after consulting with the Director of the Indian Institute of Sugar Technology, representatives of the Sugar Syndicate and merchants regarding the minimum prices for cane in relation to the price of sugar. These recommendations were considered by the Joint Sugar Control Board which was presided over by a minister and comprised representatives of cane growers, the Syndicate and the Government Departments concerned. The prices for cane and sugar were arrived at by the Board and recommended to the Central Government who finally fixed the price.

## SRIVASTAVA'S SCALE OF MANUFACTURING EXPENSES DRAWN UP IN 1937

The main source of information on the manufacturing expenses of sugar factories, is the returns submitted by factories in Form F(i), to the Director, Indian Institute of Sugar Technology, Kanpur, under the Sugar Production Rules, 1935. Manufacturing expenses are classified under the following heads:—

- (a) Power, Fuel and Stores.
- (b) Salaries and Wages.
- (c) Packing,
- (d) Repairs and Renewals.
- (e) Depreciation.
- (f) Interest on Working Capital and
- (g) Miscellaneous Expenses.

On the basis of returns received from factories, a sliding scale connecting manufacturing expenses in a season with the number of working days in the season was worked out in 1937 (Table No. 63). The scale was as under:—

<i>No. of Working days</i>							<i>Manufacturing expenses per md. of sugar</i>		
							Rs. as. p.		
150 days	...	...	...	...	...	...	...	1	7 10
140 days	...	...	...	...	...	...	...	1	9 10
130 days	...	...	...	...	...	...	...	1	11 5
120 days	...	...	...	...	...	...	...	1	13 4
110 days	...	...	...	...	...	...	...	1	15 3
100 days	...	...	...	...	...	...	...	2	1 10

The above scale allows manufacturing expenses at the rate of approximately 1-10-0 per md. of sugar, for a season of 140 working days. For every decrease of 10 in the number of working days, it allows an increase in manufacturing expenses, nearly 2 annas per md.

### THE METHOD OF COMPUTING THE SCALE

Manufacturing expenses depend on 3 factors; these are:—

- (a) Duration.
- (b) Recovery and
- (c) Capacity of the factory.

Any scale of manufacturing expenses should, therefore, be for a fixed recovery and a fixed capacity. The Srivastava Scale takes these to be 9.5 percent and 700-750 tons of cane per day of 24 hours.

In computing the scale, the manufacturing expenses reported by factories were adjusted for recovery. This was simple as the manufacturing expenses per maund of sugar is inversely

proportional to recovery. A relationship, then, had to be established between manufacturing expenses and number of working days. The purely statistical analysis failed to bring out any clear-cut relationship between manufacturing expenses and length of season but it proved that the average manufacturing expenses for a season of 140 working days was Rs. 1-10-0 per per maund of sugar. From this, the manufacturing expenses for seasons of other lengths were obtained by arithmetical calculation.

### AN EXPLANATORY NOTE ON THE MANUFACTURING COST AND COST OF PRODUCTION OF SUGAR

The term "Cost of Production" denotes the total expenditure a factory has to incur in producing sugar. The Srivastava Scale still in force for fixing the sugar price, puts it into 3 heads :—

- (1) Manufacturing expenditure.
- (2) Over-head charges and
- (3) Cost of production.

By the term "Manufacturing expenditure" the Srivastava Scale assumes those items of expenditure which are incurred during the actual process of manufacture of sugar, such as, chemicals, power, fuel, wages, etc. and the packing charges which bring the process of manufacture to a finish, but excludes the cost of raw material—cane.

The "Over-head charges" consist of items such as, Depreciation, Managing Agents Commission, Interest on Working Capital, etc. and combines with "Manufacturing expenditure" in constituting the Total Manufacturing Charges." The total manufacturing charges plus the cost of raw material, excise duty, cess, transport charges, etc. make up the "Cost of Production." Adding profit to it, we get the ex-factory selling price of sugar deducting however, the sale proceeds of molasses.

A brief explanation of the various items of expenditure falling under these three heads is given below :—

#### (1) *Manufacturing Expenditure*—

(a) *Power, Fuel and Stores*—This item covers the expenditure on electricity, fire-wood, coal, chemicals, sulphur, lime, filter cloth, etc.

(b) *Salaries and Wages*—The payments in lieu of the services of the temporary or seasonal labour are called wages and of those for higher category workers in permanent employment as salaries, under this head.

(c) *Packing*—It covers the cost of gunny bags.

(d) *Repairs and Renewals*—Due to wear and tear during operations, the building and machinery requires certain repairs and even minor replacements and forms part of the manufacturing expenditure.

## (2) *Over-head Charges*—

(a) *Insurance, Managing Agents Commission, etc.*—The expenses on Insurance, Director's fee, Head Office Expenses, Managing Agents Remuneration & Commission, Postage, Stationery and other miscellaneous expenditure fall under this head.

(b) *Depreciation*—This is the first charge on the earnings of a factory and should be set aside before the profits are arrived at. The allowance made by the Tariff Board is  $2\frac{1}{3}\%$  on buildings and 5% on machinery.

(c) *Interest on Working Capital*—As is suggested by the term itself, it allows the interest on the working capital invested, for example, on stocks of sugar held by the factory.

## (3) *Cost of Production*—

Apart from the items of expenditure falling under the above two heads, the factory has to meet certain other expenses as detailed below:—

(a) *Cost of Raw Material*—Cost of cane forms about 60-65% of the total "Cost of Production."

(b) *Cess*—The cane cess imposed by the Provincial Government is paid at -/3/- per md. of cane in U. P.

(c) *Co-operative Societies Commission*—This is payable on the cane received through Co-operative Societies.

(d) *Transport*—The charges on transport of cane and other incidental and handling charges connected therewith are meant by this term.

(e) *Excise Duty*—The duty is also charged for in the costs of production.

After accounting for all the above expenditure, we arrive at the cost price of sugar to the factory. To this we add the gross profit which the factory is expected reasonably to earn to find out the ex-factory selling price, after deducting the sale proceeds of molasses.

## PROFIT

The Tariff Board considered a gross profit of 10% on Block Capital as reasonable for the Sugar Industry. After meeting the Taxation (at that time 2%) and putting a reserve of 2%, the industry was supposed to earn a net profit of 6% on Block Capital.

## TARIFF BOARD'S RECOMMENDATIONS

Tariff Board (1950) observed as follows on the cost of production and ex-factory price of sugar:—

The present procedure for fixing the prices of sugar cane and sugar is defective in several respects. A new procedure which would ensure a planned development of the industry in all its aspects including sugarcane research and development, proper location of factories and normal efficiency of plant, should be adopted for the fixation of fair ex-factory prices of sugar in the future.

For the purpose of price fixation, certain standards should be laid down in respect of basic factors of price determination, such as the capacity of the factory, efficiency of the plant, etc. Such standards should be based upon the actual working conditions of a fair number of representative factories located in different zones. The standards laid down in paragraph 86 should be adopted for this purpose.

The Provincial Governments of U.P. and Bihar have spent only a fraction of the proceeds of cane cess on cane development work, the balance of the collection being absorbed in their general revenues. The explanation given by these governments in this connection is far from satisfactory. The levy of a tax on a raw material is, as a rule, wrong in principle and it is particularly objectionable when imposed on the raw material of an industry like sugar which has been nursed by the consumers all over the country and for which they have made a heavy sacrifice. It is, therefore, strongly recommended that all the Provincial Governments should either spend the major part of the proceeds of the cane cess on intensive cane development work so as to bring about a rapid reduction in the cost of cane, or alternatively, reduce as soon as practicable, the rate of the cess to a more reasonable figure, consistently with the requirements of cane development programme.

Expenditure towards co-operative societies' commission is incurred by the sugar mills only in U. P. and Bihar. The main function of the co-operative societies at present is development and marketing of cane, which is also largely the business of the Cane Development Department. Therefore, the funds required by these co-operative societies for cane development should be provided out of the money raised from cane cess.

The estimated ex-factory price of sugar, E27 for 1949-50 is Rs. 27-8-0 per maund. As, however, it is not desirable or practicable to alter the price already fixed by Government at this time of the year, the present statutory price of Rs. 28-8-0 per maund should remain in force until the end of the current sugar year.

The estimated fair ex-factory price of sugar, E27, for 1950-51 is Rs. 24-12-0 per maund. The maximum price for this quality of sugar for 1950-51 should be fixed at this level. If, however, our recommendation regarding the permanent employment of technical staff, viz., shift-chemists, shift engineers, chemist in charge of the laboratory and the laboratory chemists, head panman and panmen is given effect to by the industry, the estimate of fair ex-factory as stated in paragraph 93, may be increased by Re. 0-0-9 per maund of sugar.

Reduction in the price of sugar E27 to below Rs. 24-12-0 per maund can be made in the next four or five years as explained in paragraph 94.

To ensure definite progress towards increase in the yield of cane per acre and a consequent reduction in its cost and price in a period of four or five years, it is necessary that the success of the various research and development programmes undertaken by the Central and Provincial Governments should be measured in future only in terms of a reduction in the price of cane consequently on the increase in yield and improvement in quality.

A suitable committee should be appointed by the Provincial Governments concerned to examine the question of surplus workers in sugar mills and suggest ways and means of solving the problem of surplus labour.

From the point of view of compensating Government for the loss of customs revenue on imported sugar, the present excise duty levied on sugar cannot be regarded as excessive.

Consistently with the probable requirements of cane development, the cane cess can be reduced from Rs. 0-3-0 to Rs. 0-1-6 per maund and the Provincial Governments should effect such reduction as early as possible.

Considering all the factors explained in Paragraph 94, it can reasonably be expected that, apart from any marked rise in the general price level of the Country, the fair ex-factory price of sugar can be brought down to Rs. 18-0-0 or Rs. 19-0-0 per maund in a period of four or five years."

### PRICE SCHEDULES

Table No. 63

#### *Basic Schedule on the Cost of Manufacture of Sugar*

Statement showing (variation in) the manufacturing expenses, of sugar  
for a typical U. P. factory (due to variations in  
number of working days)

(Factory capacity 750 tons cane per day. Capital Cost: Rs. 14 lakhs Machinery and  
Rs. 4 lakhs Buildings, total Rs. 18 lakhs)

Worked out in 1937

Particulars	Number of Working Days					
	100	110	120	130	140	150
	Per md. sugar	Per md. sugar	Per md. sugar	Per md. sugar	Per md. sugar	Per md. sugar
Power, Fuel, etc. ...	0 6 5 0 5 11 0 5 5 0 4 11 0 4 5 0 3 11					
Salaries and Wages ...	0 10 5 0 9 5 0 8 10 0 8 2 0 7 8 0 6 9					
Packing ...	0 2 0 0 2 0 0 2 0 0 2 0 0 2 0 0 2 0					
Repairs and Renewals ...	0 2 3 0 2 3 0 2 3 0 2 3 0 2 3 0 2 3					
Manufacturing expenditure ...	1 5 1 1 3 7 1 2 6 1 1 4 1 0 4 0 14 11					
Insurance, Managing Agents, etc. ...	0 4 11 0 4 5 0 4 1 0 3 9 0 3 6 0 3 3					
Depreciation ...	0 6 4 0 5 9 0 5 3 0 4 10 0 4 6 0 4 2					
Interest on working capital ...	0 1 6 0 1 6 0 1 6 0 1 6 0 1 6 0 1 6					
Overhead charges ...	0 12 9 0 11 8 0 10 10 0 10 1 0 9 6 0 8 11					
Total manufacturing charges ...	2 1 10 1 15 3 1 13 4 1 11 5 1 9 10 1 7 10					



Table No. 64

Details of Sugar Price Calculations per Maund of Sugar for Uttar Pradesh for Seasons 1944-45 to 1949-50

** Duration and Recovery	1944-45		1945-46		1946-47		1947-48		1948-49		1949-50	
	115 days 9.8%		110 days 10%		100 days 10%		90 days 10%		105 days 10%		105 days 10%	
	Per md. of sugar	% on total	Per md. of sugar	% on total	Per md. of sugar	% on total	Per md. of sugar	% on total	Per md. of sugar	% on total	Per md. of sugar	% on total
1. Cane Price ...	Rs. as. p. 8 14 10	59.3	Rs. as. p. 8 15 9	55.3	Rs. as. p. 12 8 0	59.9	Rs. as. p. 20 0 0	56.4	Rs. as. p. 16 4 0	57.0	Rs. as. p. 16 4 0	57.0
2. Transport charges ...	0 2 0	0	0 2 0	0	0 2 0	0	0 2 0	0	0 5 3	0	0 5 3	0
3. Co-operative Societies' Conn. ...	0 1 8	0	0 2 3	0	0 2 3	0	0 2 3	0	0 6 9	0	0 6 9	0
4. Govt. Charges— (i) Cane Cess. ...	0 10 2	17.5	0 10 0	17.4	0 10 0	13.6	1 14 0	11.5	1 14 0	14.3	1 14 0	16.3
(ii) Excise Duty ...	2 3 3		2 3 3		2 3 3		2 3 3		2 3 3		2 12 1	
5. Mfg. Expenses— (a) Basic ...	1 13 1		1 13 8		2 0 3		3 2 7		1 15 0		1 15 0	
(b) Additional ...	1 8 3	21.6	1 7 5	20.8	1 14 9	20.4	3 6 0	21.3	3 6 8	19.7	3 9 10	20.4
(c) Extra Allowance ...	0 2 11	*	0 1 0	+	0 5 3	X	1 0 3	**	0 4 3	**	0 4 3	
6. Profit ...	0 13 9	5.3	0 14 1	5.4	1 2 3	5.5	3 4 3	9.2	0 14 9	3.2	0 14 9	3.2
7. Grade Difference ...	...		...		...		...	...	...		...	
8. Pooling Allowance...	...		...		...		@ 0 6 0	@	1 0 0		...	
9. TOTAL ...	16 5 11		16 5 5		21 0 0		35 8 7		28 9 1		29 9 11	
10. Less Return from Molasses ...	0 1 6		0 1 6		0 1 6		0 1 6		0 1 6		0 1 6	
11. Net Ex-factory Price	16 4 5	or say 16 4 5	16 4 0	or say 16 4 0	20 14 6	or say 20 14 6	35 7 1	or say 35 7 1	28 8 5	or say 28 8 5	28 8 0	or say 28 8 0

\* Allowance given for Insurance, storage and deterioration.

@ Pooling Allowance due to higher cost of production in Bihar.

+ Includes -/4/- allowed for Reserves and -/1/3/- for extra insurance.

@@ Pooling Allowance for the carry-over stocks of 1947-48 season's sugar.

X Includes compensation for the Award d/- 26-6-47 (-/3/-), increase on a/c of Nimbkar Committee findings (-/8/-), extra insurance (-/1/3), and Spl. allowance for Reserve (-/4/-).

\*\* Includes Award Allowance (-/3/-), and Extra Insurance (-/1/3).

Table No. 65

*Government Estimates of duration of Season and Recovery of Sugar and the Actuals obtained during the Seasons 1944-45 to 1949-50*

Season	UTTAR PRADESH				BIHAR			
	Estimated by Sugar Control Board		Actual		Estimated by Sugar Control Board		Actual	
	Duration of sea- son (days)	Recovery %	Duration of sea- son (days)	Recovery %	Duration of sea- son (days)	Recovery %	Duration of sea- son (days)	Recovery %
1944-45 ...	115	9.8	98	10.20	85	10.6	78	10.69
1945-46 ...	110	10.0	96	10.09	100	10.6	79	10.49
1946-47 ...	100	10.0	97	10.03	90	10.5	70	10.08
1947-48 ...	90	10.0	114	9.80	60	10.0	76	10.49
1948-49 ...	105	10.0	97	9.93	85	10.5	84	10.34
1949-50 ...	105	10.0	90	9.64	95	10.3	98	9.91

### ISMA'S REPRESENTATION TO THE GOVT. OF INDIA REGARDING LOSSES SUFFERED BY THE FACTORIES DURING 1949-50

The Committee of the Indian Sugar Mills Association addressed a letter to the Ministry of Food and Agriculture, Govt. of India in connection with the serious losses which the industry had suffered in the 1949-50 season owing to disparity between the estimated and actual sugar recovery and duration. The ex-factory price of Rs. 28/8/- per maund for E27 quality sugar was fixed on the basis of the following estimates for the sugar mills in the states of U. P. and Bihar.

State	Duration of the Season				Sugar Recovery
U. P. ...	...	...	...	...	105 days
Bihar ...	...	...	...	...	95 days

Against the Govt.'s above estimates, the actual recovery and duration achieved by the factories in the respective States during the 1949-50 season were as follows:—

State	Duration of the Season				Sugar Recovery
U. P. ...	...	...	...	...	90 days
Bihar ...	...	...	...	...	97 days

"As will be seen, in the U.P. both the sugar recovery and duration have been lower than those estimated by the Govt. for the purpose of price calculation. In the case of Bihar, while the duration has exceeded the estimated figure by 2 days, sugar recovery has dropped by 4% from the estimated recovery. It might be mentioned that Govt. decided to take higher estimates in spite of the Industry's advice to the contrary.

"On the basis of actual duration and sugar recovery, the cost of production works out to Rs. 30/-/9 per maund in U. P. and Rs. 29-6-8 per maund in Bihar. Thus, the loss incurred by factories in U. P. and Bihar is of the order of Rs. 1-9-0 and Rs. -/15/- per maund respectively. These figures have been arrived at on exactly the present controlled price. The break up details of the cost of production on the basis of estimated as also the actual recovery and duration in both the States are shown in the enclosed statements.

"The Government will no doubt appreciate that it is not within the competence of the industry to incur such heavy losses. The basis adopted by the Govt. for the purpose of price calculation is already such that it does not provide for an adequate profit margin to the sugar mills. It will not be out of place to mention here that Govt. have even thought it fit to exclude some of the essential items of cost which should be permissible to the industry under the Srivastava's scale. In the result what the industry can actually earn is not what is shown in Govt's calculation but less than that. On the top of this when there is such wide disparity between the estimated and actual sugar recovery and duration, the two determinants of cost of production, the industry is indeed, left in a very precarious position. The Committee would, therefore, urge to consider carefully the situation in which the industry has been placed and for which it cannot be held responsible in any way and take suitable steps to compensate the industry. The Committee might, however, make the following suggestions in this connection :—

- (1) Part of the Excise Duty should be refunded.
- (2) The State Govt. be asked to refund part of the Cane Cess.
- (3) Molasses not required for distilleries should be released to the factories for sale in the open market.
- (4) Freight advantage allowed by the Syndicate should be restored.

"Undoubtedly, the most appropriate way to compensate the industry would be to increase the sugar price so as to provide for the increased cost of production therein. The Committee are, however, not making this suggestion in view of the Govt.'s definite policy to hold the prices firm. However, the Govt. might also consider the possibility of raising the sugar price to some extent.

"It is considered necessary to mention that in view of the over-all short in the production as compared with the last season, the Industry has on the whole not benefitted by the revenue concessions announced by the Government of India and the State Governments. On the contrary, it has suffered on account of lower sugar recovery which is partly due to early start by the factories under Govt.'s instructions.

In spite of the Industry's best efforts to increase production, it has not been able to do so due to high gur and khandsari prices that ruled throughout the season resulting in large-scale diversion of cane to gur and Khandsari. It may be recalled "that the Association had informed the Government during the crushing season itself to the expected fall in production on this account."

**COMPARATIVE STATEMENT SHOWING THE BREAK UP DETAILS OF COST OF PRODUCTION FOR THE SEASON 1949-50 ON THE BASIS OF ESTIMATED AND ACTUAL RECOVERY AND DURATION IN U. P.**

Items	Govt. Basis Duration-105 days Recovery 10%	Cost on the basis of actuals-Duration 90 days Recovery 9.66%	Additional cost due to low recovery and short- er duration
	Rs. as. p.	Rs. as. p.	Rs. as. p.
Price of cane ... ..	16 4 0	16 11 10	0 7 10
Cess @ 2/3/- ... ..	1 14 0	1 14 10	0 0 10
Co-operative Societies Comn. ...	0 6 9	0 6 9	...
Basic manufacturing expenses ...	1 15 0	2 4 7	0 5 7
Additional M. E. ... ..	3 9 10	4 1 0	0 7 2
Excise duty ... ..	2 12 1	2 12 1	...
Extra Insurance ... ..	0 1 3	0 1 3	...
Awards ... ..	0 3 0	0 3 0	...
Profits ... ..	0 14 0	1 1 8	...
	28 5 11	28 14 3	1 8 4
Deduction for Molasses ... ..	0 1 6	0 1 6	...
	28 4 5	29 12 0	...
Additional for grade difference between D-24 and E-27 ... ..	0 4 0	0 4 0	...
	28 8 5	30 0 9	...
Price fixed ... ..	28 8 0	28 8 0	...

Loss per md. of sugar Rs. 1-8-9, i.e., Rs. 1-9-0.

**DETAILS OF MANUFACTURING EXPENSES (U. P.)**

	Basic	Increase percent	Increase
Power, fuel and store ... ..	0 7 1	167%	0 11 10
Salaries and wages ... ..	0 11 5	339%	2 6 8
Repairs and renewals ... ..	0 2 3	250%	0 5 8
Packing ... ..	9 2 0	491%	0 9 10
			4 2 0
Insurance ... ..	0 5 4		
Depreciation ... ..	0 7 0		
Interest on working capital ...	0 1 6		
	2 4 7		

**COMPARATIVE STATEMENT SHOWING THE BREAK UP DETAILS OF COST  
OF PRODUCTION OF SUGAR FOR THE SEASON 1949-50 ON THE  
BASIS OF ESTIMATED AND ACTUAL RECOVERY AND  
DURATION IN BIHAR**

Items	<i>Government basis</i>			<i>Cost on the basis of actuals</i>			Additional cost due to variation in recovery & duration
	Duration-95 days Recovery-10.3%			Duration-97 days Recovery 9.93%			
			Rs. as. p.			Rs. as. p.	Rs. as. p.
Price of cane ...	...	...	16 3 6			16 14 2	0 10 9
Cess @ -/3/- ...	...	...	1 13 0			1 14 4	0 1 4
Transport ...	...	...	0 5 3			0 5 3	0 1 4
Co-operative Societies Comn. ...	...	...	0 1 9			0 1 9	...
Basic Manufacturing expenses ...	...	...	2 0 10			2 1 8	0 10 0
Additional M. E. ...	...	...	3 12 0			3 14 6	0 2 6
Excise duty ...	...	...	2 12 1			2 12 1	...
Extra Insurance ...	...	...	0 1 3			0 3 1	...
Awards ...	...	...	0 3 0			0 3 0	...
Profits ...	...	...	0 15 9			1 0 2	0 0 5
			28 4 4			29 4 2	0 15 10
Deduction for Molasses ...	...	...	0 1 6			0 1 6	...
			28 2 10			29 2 8	...
Additional for grade difference between D-24 and E-27 ...	...	...	0 4 0			0 4 0	...
			28 6 10			29 6 8	...
Price fixed ...	...	...	28 8 0			29 6 8	...

Loss per md. of sugar Re. 0-14-8 or Rs. 0-15-0.

Table No. 66

*Price of Sugar (per maund) in India from 1936-37 to 1951-52*

Year					Market Price		Grade
					Rs. as. p.	Rs. as. p.	
1936-37 ...	...	...	...	...	6 7 0		...
1937-38 ...	...	...	...	...	6 12 0 to	9 4 0	...
1938-39 ...	...	...	...	...	9 2 0 to	12 1 0	...
1939-40 ...	...	...	...	...	8 15 0 to	12 8 0	...
1940-41 ...	...	...	...	...	8 15 0 to	9 10 0	...
1941-42 ...	...	...	...	...	10 1 0 to	12 8 0	...
Ex-factory Price							
1942-43 ...	...	...	...	...	11 11 0 to	14 0 0	D-24
1943-44 ...	...	...	...	...	14 13 0		D-24
1944-45 ...	...	...	...	...	16 4 0		D-24
1945-46 ...	...	...	...	...	16 4 0		D-24
1946-47 ...	...	...	...	...	20 14 0		D-24
1947-48 ...	...	...	...	...	35 7 0		D-24
1948-49 ...	...	...	...	...	28 8 0		D-24
					upto 28th Feb., 49		
					29 1 0		
					From 1st March, 49		
1949-50 ...	...	...	...	...	28 8 0		27E
1950-51 ...	...	...	...	...	29 12 0	plus ad hoc	27E
1951-52 ...	...	...	...	...	...	increases	

Table No. 67

*Ex-factory Prices of Crystal Sugar of E-27 Grade for the Season 1950-51*

Region				Price per md. Ex-factory	Region				Price per md. Ex-factory
				Rs. as. p.					Rs. as. p.
West U. P. ...	...	...	...	30 8 0	PEPSU :				
East U. P. ...	...	...	...	32 0 0	Phagwara ...	...	...	...	34 0 0
North Bihar ...	...	...	...	31 0 0	Hamira ...	...	...	...	34 14 0
South Bihar ...	...	...	...	33 0 0	Madras:				
Bombay ...	...	...	...	29 12 0	Anakapale	}			
Punjab ...	...	...	...	30 8 0	Etikopaka				
West Bengal ...	...	...	...	30 8 0	Mailpatti		...	...	33 0 0
Hyderabad ...	...	...	...	29 12 0	Podanur				
Orissa ...	...	...	...	33 0 0	Madura	}			
Madhya Bharat ...	...	...	...	31 8 0	Tanuku				
Mysore ...	...	...	...	33 0 0	Bobbili				
Bhopal ...	...	...	...	32 0 0	Seethangram				
Travancore-Cochin ...	...	...	...	33 0 0	Pugalur	}	...	...	32 0 0
Rajasthan :					Samalkot				
1. Mewar ...	...	...	...	33 0 0	Kirlampudi				
2. Bikaner ...	...	...	...	34 14 0	Nellikuppam				
					Vuyyuru	}	...	...	30 8 0
					Hospet				

# EX-FACTORY PRICES FOR E27 SUGAR FOR 1950-51 SEASON IN MADHYA BHARAT

The following ex-factory prices for E27 grade sugar had been fixed for sugar factories in the Madhya Bharat Union.

Jaora Factory	...	...	...	...	Rs. 30 4 0 per maund of sugar.
Dalauda Factory	...	...	...	...	Rs. 31 9 3 per maund of sugar.
Dabra Factory	...	...	...	...	Rs. 31 8 0 per maund of sugar.
Sarangpur Factory	...	...	...	...	Rs. 32 4 0 per maund of sugar.
Mehidpur Factory	...	...	...	...	Rs. 32 4 0 per maund of sugar.

Further, a freight advantage of Re. 1-4-0 per maund had been granted to Messrs. Bhopal Sugar Factories, Sehore, by the Government of India.

Table No. 68

*Sugar Price during 1951-52*

Schedule I

Area	Ex-factory Price Per md.
	Rs. as. p.
Bihar—North	... 31 0 0
Bihar—South	... 33 0 0
Bombay	... 29 12 0
Orissa	... 33 0 0
Punjab	... 30 8 0
U. P.—West	... 30 8 0
U. P.—East	... 31 8 0
West Bengal	... 30 8 0
Hyderabad	... 29 12 0
Mysore	... 29 12 0
Travancore-Cochin	... 33 0 0
Bhopal	... 32 12 0
Madras :	
Anakapalle, Etikoppaka, Mailpatti, Podanur, Madura, Tanuku	... 33 0 0
Bobbili, Sethanagaram Kirlampudi	... 31 4 0
Pugalur, Samalkot, Vuyyuru, Hospet, Nellikuppam	... 29 12 0
Madhya Bharat :	
Dabra	... 32 3 0
Jaora, Mehidpur Road, Dalauda, Sarangpur	... 33 0 0
Rajasthan :	
Bikaner and Mewar	... 34 14 0
PEPSU :	
Phagwara	... 34 0 0
Hamira	... 34 14 0

(Vide notification No. S. R. O. 1599 dated 18th October, 1951).

Table No. 69

*Price Differentials of Sugar according to Quality during the Seasons 1950-51 and 1951-52*

## Schedule II

Price differentials per md. for various grades of crystal sugar based on the ex-factory price of E-27 grade.

	29	28	27	26	25	24
	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
AA ...	+ 1 2 6	+ 0 15 6	+ 0 12 6	+ 0 9 6	+ 0 6 6	+ 0 2 6
A ...	+ 0 15 6	+ 0 12 6	+ 0 9 6	+ 0 6 6	+ 0 3 0	+ 0 0 6
B ...	+ 0 12 6	+ 0 9 6	+ 0 6 6	+ 0 3 0	+ 0 1 6	- 0 1 6
C ...	+ 0 9 6	+ 0 6 6	+ 0 3 0	+ 0 1 6	- 0 0 6	- 0 3 6
D ...	+ 0 6 6	+ 0 3 0	+ 0 1 6	- 0 0 6	- 0 3 6	- 0 6 6
E ...	+ 0 3 0	+ 0 1 6	...	- 0 2 0	- 0 6 6	- 0 10 6
F ...	+ 0 1 6	...	0 - 2 0 0	- 5 6 0	- 10 6	- 0 14 6
G ...	...	- 0 2 0	- 0 5 6	- 0 9 6	- 0 14 6	- 1 2 6

## Schedule III

Price differentials per md. for various grades of refined sugar based on the ex-factory price of E-27 grade of crystal sugar.

	29	28	27
	Rs. as. p.	Rs. as. p.	Rs. as. p.
AA ...	+1 11 0	+1 9 0	+1 7 0
A ...	+1 9 0	+1 7 0	+1 5 0
B ...	+1 7 0	+1 5 0	+1 3 0
C ...	+1 5 0	+1 3 0	+1 1 0
D ...	+1 3 0	+1 1 0	+0 15 0
E ...	+1 2 0	+1 0 0	+0 14 0
F ...	+1 1 0	+0 15 0	+0 13 0
G ...	+1 0 0	+0 14 0	+0 12 0



## Schedule IV

Price differentials per md. for various grades of crushed sugar based on the ex-factory price of E-27 grade of crystal sugar.

Grade							Differentials		
13 ...	...	...	...	...	...	...	...	...	...
12 ...	...	...	...	...	...	...	...	0	3 0
11 ...	...	...	...	...	...	...	...	0	7 0

## EXPLANATIONS

(1) The grades mentioned in this notification shall be according to the Indian Sugar Standards prescribed by the Bureau of Sugar Standards of the Indian Institute of Sugar Technology, Kanpur and the grading will be done according to the instructions issued by the Bureau of Sugar Standards from time to time.

(2) "Refined Sugar" means sugar manufactured by re-melting ordinary sugar in water, and by suitably treating and filtering the solution and recovering sugar therefrom after boiling in vacuum-pans, the resulting sugar having colour not lower than Indian Sugar Standard No. 27 and being sufficiently pure to satisfy the following test, namely :—

The specific conductivity determined at 35°C and multiplied by  $10^6$  of a solution prepared by dissolving 5 grams of the sugar in conductivity water and making up to 100 c.c., should not exceed 15, after deducting the value for the specific conductivity at the same temperature and multiplied by  $10^6$  of the conductivity water used.

Table No. 70

*Total Value of Sugar Production (1938-39 to 1949-50)*

Year	Total Production of Sugar (Lakh tons)			Price * of sugar per maund	Total Value of Sugar in Crores of rupees (Approximate)
1938-39	...	...	7.5	9 10 0	18.75
1939-40	...	...	13.5	9 12 0	37.40
1940-41	...	...	12.7	9 2 0	28.36
1941-42	...	...	8.6	12 8 0	30.10
1942-43	...	...	12.5	14 0 0	54.00
1943-44	...	...	13.5	15 0 0	56.74
1944-45	...	...	10.6	16 4 0	47.86
1945-46	...	...	10.3	16 10 0	48.10
1946-47	...	...	9.01	22 11 0	57.00
1947-48	...	...	10.7	35 7 0	108.40
1948-49	...	...	10.07	28 8 0	79.89
1949-50	...	...	9.75	28 8 0	73.00

\* Average.

Table No. 71

Average Monthly price of Open Market Sugar per Maund during the Year 1951

Market	March	April	May	June	July	August	September	October	November	December
	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
Kanpur	57 14 1	62 0 5	66 11 6	65 2 9	64 10 7	58 10 11	57 2 7	60 2 3	56 2 7	52 7 4
Ambala	59 6 0	64 5 6	69 13 10	67 2 11	66 6 10	58 8 10	59 0 0	...	54 0 0	53 0 0
Amritsar	58 14 6	62 7 4	69 1 11	68 13 5	67 7 4	62 8 11	61 12 0	63 6 10	57 8 11	56 2 0
Delhi ...	61 0 0	63 1 9	69 0 0	67 4 3	64 6 8	61 1 1	58 3 5	58 8 0	53 0 0	51 13 7
Meerut	55 4 5	64 1 3	67 2 0	64 15 7	64 14 8	59 9 1	58 10 6	58 11 2	54 13 0	51 5 7
Patna ...	60 11 8	...	62 0 0	...	54 8 0	54 8 0	...	...	...	50 3 11
Calcutta	68 3 10	63 4 1	65 14 0	63 3 8	64 6 5	64 0 10	60 4 10	60 3 4	59 1 2	57 15 8
Madras	...	...	66 3 2	66 15 4	67 15 0	67 15 0	...	60 3 11	54 7 5	52 10 7
Bombay	64 15 10	65 0 4	71 3 11	69 15 10	68 11 11	63 2 7	61 6 3	63 4 11	58 7 11	57 0 10

## FINANCIAL CONDITION OF SUGAR MILLS

(3) *Capital Invested*—No authentic data of the capital invested in the industry are available. According to one estimate, the present paid-up capital of the companies engaged in sugar manufacture amounts to Rs. 33 crores, the net block capital being Rs. 28 crores. Another estimate of fixed capital puts the figure at Rs. 20 crore. This latter estimate, which seems on the low side, is based on the fact that most of the existing factories were started between 1932 and 1938, during which period the prices of sugar mill machinery imported into the country were lower. It must also be pointed out that several factories were started with second-hand machinery purchased from Java during the Great Depression. Again, according to the Second Census of Manufactures, India, 1947, the figures relating to the capital, etc., of 137 out of 166 factories in existence including gur refineries were as follows :

### CAPITAL INVESTMENT IN THE SUGAR INDUSTRY IN 1947-48

No. of factories reporting	...	...	...	...	...	...	137
Total fixed capital including land and buildings, plant and machinery and other fixed assets	...	...	...	...	...	...	Rs. 14,18,56,007
Working Capital	...	...	...	...	...	...	Rs. 30,50,14,018
Total Productive Capital							Rs. 44,68,70,025

Basing the estimate of fixed capital on the figures mentioned in the Census of Manufactures for 137 factories and extending the figures to cover all the 158 factories including the new units established in the post-war period, a figure of Rs. 25 crores fixed capital for all the 158 existing units, old as well as new, may be taken to be a reasonable estimate. Many of the existing sugar factories established before 1939 are in urgent need of replacements. The replacement cost of worn-out machinery itself would be very high because the actual cost of the factory of 800 tons daily cane crushing capacity, established by Parry & Co. in 1949, is stated to have come to about Rs. 65 lakhs.

Imports of sugar factory machinery have been allowed on a liberal scale as will be seen from the following figures:—

Year							Value
1945-46	...	...	...	...	...	...	Rs. 30,43,109
1946-47	...	...	...	...	...	...	Rs. 55,44,094
1947-48	...	...	...	...	...	...	Rs. 95,97,938
1948-49	...	...	...	...	...	...	Rs. 1,51,78,595
1949-50	...	...	...	...	...	...	Rs. 1,74,24,807

These figures relate not only to machinery import for new units but also those for replacements and extensions. Break-up figures are not available for assessing the extent of replacements carried out from year to year by the industry.

Since manufacture of some items of sugar machinery is also undertaken by some firms in the country, the extent of such supplies from domestic production has also contributed to increase the replacements effected.

It remains, however, that adequate foreign exchange should be made available for some years to come for meeting the imports of sugar machinery required for further replacements.

Sugar mill machinery is subject to an import duty of 10 per cent. and the industry has recently represented that the incidence of this duty should be reduced to 5 per cent as in the case of capital goods required by other industries.

The following tables will show the financial position of the sugar factories in the various regions of India. Table No. 72 gives the annual average capital, profits, dividends, reserves and depreciation per factory. Table No. 73 shows the profits, dividends and reserves as percentage of Capital, and dividends as percentage of profits and Table No. 74 gives the profits per maund of sugar.

The two tables Nos. 75 & 76 give the paid-up capital, net block, reserves and profits, etc., of some of the factories for which figures were available.

**Table No. 72**

*Statement Showing Annual Average Capital, Profits, Dividends, Reserves and other Funds and Depreciation per Factory (In 1,000 Rupees)*

Items	Regions		Pre-War	War	Post-War	1947-48	Whole period
			1933-34 to	1939-40 to	1945-46 to		1933-34 to
			1938-39	1944-45	1946-47		1947-48
(a) Capital	1. U. P. ...	...	970	1387	1891	2453	1376
	2. Bihar ...	...	902	973	1890	1445	1125
	3. Bombay ...	...	2036	1546	1620	2318	1739
	4. Madras ...	...	1770	1840	1949	1949	1839
	5. Others ...	...	1108	1327	1572	1579	1368
	6. All India	...	1258	1379	1839	1995	1454
(b) Profits	1. U. P. ...	...	194	393	347	913	353
	2. Bihar ...	...	51	185	73	592	153
	3. Bombay ...	...	624	553	620	2654	760
	4. Madras ...	...	346	727	897	1154	646
	5. Others ...	...	231	274	74	1790	379
	6. All India	...	233	415	409	1206	416
(c) Dividends	1. U. P. ...	...	82	113	136	141	106
	2. Bihar ...	...	27	79	73	74	61
	3. Bombay ...	...	320	231	291	354	273
	4. Madras ...	...	169	198	188	265	191
	5. Others ...	...	118	150	93	176	136
	6. All India	...	112	140	149	185	136

Table No. 72 (Contd.)

(d) Reserve & other funds	1. U. P. ...	...	43	108	113	334	102
	2. Bihar ...	...	17	34	15	239	39
	3. Bombay ...	...	179	159	139	1150	244
	4. Madras ...	...	90	105	118	615	140
	5. Others ...	...	108	61	38	867	144
	6. All India ...	...	62	90	83	532	113
(e) Depreciation	1. U. P. ...	...	110	112	101	118	110
	2. Bihar ...	...	88	85	57	111	83
	3. Bombay ...	...	136	133	194	311	159
	4. Madras ...	...	111	164	216	212	156
	5. Others ...	...	62	108	119	118	104
	6. All India ...	...	105	117	129	166	119

Source—Report of Indian Tariff Board (1950)

Table No. 73

*Statement showing Profits, Dividends and Reserves and other Funds as Percentage of Capital, and Dividends and Reserves and other Funds as Percentage of Profits*

Items	Regions		Pre-War	War	Post-War	1947-48	1933-34 to 1947-48
			1933-34 to 1938-39	1939-40 to 1944-45	1945-46 to 1946-47		
(a) Profits per-cent capital.	1. U. P. ...	...	19.98	28.30	18.33	37.22	25.65
	2. Bihar ...	...	5.68	19.06	3.84	40.95	13.56
	3. Bombay ...	...	30.64	35.77	38.31	114.50	43.70
	4. Madras ...	...	19.53	39.48	46.04	59.20	35.13
	5. Others ...	...	20.84	20.62	4.72	113.40	27.69
	6. All India ...	...	18.55	30.13	22.26	60.46	28.58
(b) Dividends as per cent of capital.	1. U. P. ...	...	8.43	8.11	7.19	5.73	7.73
	2. Bihar ...	...	3.01	8.04	3.84	5.11	5.39
	3. Bombay ...	...	15.70	14.96	17.99	15.25	15.67
	4. Madras ...	...	9.53	10.73	9.64	13.61	10.37
	5. Others ...	...	10.68	11.31	5.90	11.15	9.97
	6. All India ...	...	8.88	10.14	8.09	9.28	9.32

Table No. 73 (Contd.)

(c) Dividends as percent of profits	1. U. P. ...	...	42.17	28.66	39.23	15.40	30.12
	2. Bihar ...	...	52.90	42.18	100.00	12.48	39.78
	3. Bombay ...	...	51.24	41.82	46.95	13.32	35.87
	4. Madras ...	...	48.82	27.18	20.93	23.00	29.52
	5. Others ...	...	51.23	54.83	124.92	9.83	35.99
	6. All India ...	...	47.88	33.66	36.34	15.35	32.61
(d) Reserves & other funds as percent of capital	1. U. P. ...	...	4.42	7.79	6.00	13.59	7.40
	2. Bihar ...	...	1.90	3.47	0.79	16.56	3.51
	3. Bombay ...	...	8.81	10.27	8.55	49.62	14.06
	4. Madras ...	...	5.10	5.72	6.06	31.53	7.61
	5. Others ...	...	9.74	4.58	2.39	54.89	10.51
	6. All India ...	...	4.94	6.55	4.51	26.67	7.80
(e) Reserves & other funds as percent of profits.	1. U. P. ...	...	22.10	27.52	32.73	36.53	28.85
	2. Bihar ...	...	33.39	18.21	20.67	40.44	25.89
	3. Bombay ...	...	28.74	28.71	22.32	43.33	32.18
	4. Madras ...	...	26.12	14.49	13.17	53.26	21.66
	5. Others ...	...	46.75	22.23	50.51	48.41	37.95
	6. All India ...	...	26.65	21.74	20.24	44.11	27.30

Source—Report of Indian Tariff Board (1950).

Table No. 74  
*Profit Per Maund of Sugar*

Name of the factory	Pre-war period	War period	Post-war period	Whole period	
	1933-34 to 1938-39	1939-40 to 1944-45	1945-46 to 1946-47	1947-48	1933-34 to 1947-48
	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
U. P.					
1. Ganesh ...	0 7 9	1 2 5	1 6 4	0 8 11	0 14 8
2. Lakshmi ...	0 9 11	1 1 9	1 1 0	2 8 11	1 1 10
3. U. P. ...	0 13 2	1 8 11	0 9 11	4 7 8	1 5 7
Average ...	0 10 5	1 4 0	0 15 11	2 12 5	1 2 2

Table No. 74 Contd.

			Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
<i>Bihar:</i>								
1. Belsund ...	...	...	*0 6 9	1 0 1	*2 10 11	0 2 7	0 1 11	
2. Gaya ...	...	...	1 0 0	0 12 4	0 2 0	0 0 0	0 11 2	
3. Ganga Devi ...	...	...	*0 0 4	0 8 4	*0 11 0	*0 5 3	0 2 2	
4. Harinagar ...	...	...	0 8 6	1 0 3	0 13 7	4 5 9	0 15 11	
5. Hanuman ...	...	...	0 3 10	2 3 6	1 15 2	7 13 4	2 0 1	
6. New Swadeshi ...	...	...	0 8 9	1 1 6	0 14 10	5 6 0	1 0 8	
7. Sitalpore ...	...	...	0 4 4	0 5 5	*0 3 6	0 10 2	0 4 5	
Average ...			0 4 6	1 0 10	0 6 1	3 10 6	0 13 5	
<i>Bombay.</i>								
1. Belapur ...	...	...	3 3 2	3 6 7	5 8 8	14 9 8	4 7 5	
2. Godavari ...	...	...	N.	1 0 1	5 5 3	17 5 11	3 0 5	
3. Kolhapur ...	...	...	1 4 0	3 2 10	0 14 7	10 6 2	2 13 5	
Average ...			2 11 4	2 7 1	4 6 3	14 8 8	3 11 2	
<i>Madras:</i>								
1. Deccan ...	...	...	N.	8 8 5	2 8 11	12 0 1	6 5 7	
2. East India ...	...	...	1 10 7	3 13 9	5 1 11	0 14 7	3 2 10	
3. India ...	...	...	0 6 10	2 2 8	1 5 4	4 15 9	1 15 9	
4. K. C. P. ...	...	...	N.	1 10 8	2 15 0	5 15 4	3 5 1	
5. Mysore ...	...	...	1 10 8	2 5 10	3 0 7	4 6 1	2 4 11	
Average ...			1 9 2	2 14 4	3 8 0	3 14 2	2 11 6	
<i>West Bengal:</i>								
1. Ramnugger ...	...	...	N.	1 3 11	3 0 7	11 11 5	2 14 7	
<i>East Punjab:</i>								
1. Jagatjit ...	...	...	1 6 5	1 13 0	*1 14 9	8 13 4	2 2 5	
Average W. Bengal & E. Punjab ...			1 6 5	1 9 4	0 12 7	9 15 7	2 6 9	
ALL INDIA ...			1 2 3	1 14 2	2 4 9	5 14 8	2 0 7	

\* Indicates Loss.

N. Indicates information not available.

Source—Report of I. T. B. (1950).

Table No. 75

*Capital, Block (Net) and Reserves of Sugar Companies during 1949-50*

Factory				Paid-up Capital	Net Block	Total Reserve
U. P.—				Rs.	Rs.	Rs.
1.	Balrampur (2)	...	...	28,00,000	19,42,968	5,83,000
2.	Basti (2)	...	...	15,00,000	15,48,680	24,96,740
3.	Buland	...	...	23,99,350	17,96,393	43,66,886
4.	Carew (2) (Rosa and Darsana)	...	...	40,00,000	48,07,758	14,76,823
5.	Deoband	...	...	8,52,841	8,96,669	5,10,952*
6.	Deoria	...	...	5,99,452	7,55,693	8,47,942
7.	Ganesh	...	...	16,00,000	13,48,661	1,26,032
8.	Jaswant	...	...	30,00,000	26,54,471	15,000†
9.	Nawabganj	...	...	17,00,000	24,38,188	11,64,086
10.	Ghughli	...	...	12,00,000	8,08,128	13,84,233
11.	Purtabpore	...	...	15,00,000	5,10,791	8,13,398
12.	Ratna	...	...	12,13,660	14,80,665	8,37,992
13.	Raza	...	...	19,99,580	16,38,589	38,18,838
14.	Shree Anand	...	...	20,00,000	14,35,129	...
15.	Shri Sitaram	...	...	7,95,462	13,57,996	9,44,066
16.	Mansurpur	...	...	15,00,000	13,33,926	1,50,000
17.	Seorahi	...	...	16,00,000	4,45,735	15,12,520
18.	Shamli	...	...	18,75,000	15,45,530	...
19.	Seohara	...	...	35,00,000	32,73,020	9,80,758
20.	Khatauli	...	...	21,00,000	13,98,550	22,62,977
Bihar—						
21.	Belsund	...	...	19,49,050	8,95,655	...
22.	Bharat	...	...	20,00,000	4,26,227	11,77,166
23.	Cawnpore (2)	...	...	25,00,000	15,17,231	40,58,430
24.	Champaran (2)	...	...	18,00,000	10,14,685	30,55,590
25.	Durbhanga (2)	...	...	26,00,000	13,90,842	22,35,693
26.	Gaya	...	...	67,07,150	46,43,806	12,62,032
27.	Mohini	...	...	12,25,000	13,23,361	...
28.	New India	...	...	18,37,700	10,26,589	2,45,859
29.	New Savan	...	...	11,00,000	13,17,395	4,20,000
30.	Ryam	...	...	8,00,000	4,31,918	13,06,193
31.	Samastipur	...	...	11,99,000	16,28,119	14,02,882
32.	Motihari	...	...	20,00,000	...	17,08,818
33.	S. K. G. (2)	...	...	38,00,000	41,57,915	10,10,842
34.	Bihta	...	...	13,25,000	16,34,098	57,034
35.	Sitapur	...	...	9,99,950	8,13,387	61,765
36.	Belapur	...	...	46,99,750	16,59,525	43,03,268
37.	Gwalior	...	...	27,68,900	23,89,532	2,01,890
38.	Mysore	...	...	21,79,280	32,98,717	101,70,585
39.	Ramnuggar	...	...	20,59,820	23,22,426	18,56,925
40.	Beldanga	...	...	19,02,015	22,77,288	1,14,945

\* (Year 1943).

† (Year 1946).



Table No. 76

## Net Profit and Dividend of Sugar Companies

Name of Company	Net Profit				Dividend %				
	1947	1948	1949	1950	1946	1947	1948	1949	1950
1. Balrampur ...	—5,351	1,30,114	—8,12,002	—2,48,285	2½	...	5	...	...
2. Basti ...	1,81,433	4,97,500	—2,78,800	2,81,224	15	12	12½	6 1/4	6 1/4
3. Belapur ...	10,93,315	31,64,433	15,47,109	19,45,581	16	24	18 2/3	16 3/4	25
4. Belsund ...	—4,05,053	—35,256	—3,83,917	...	...	...	...	...	...
5. Bharat ...	1,03,499	6,21,187	1,07,209	2,70,553	10	7½	7½	7½	10
6. Buland ...	10,55,221	32,52,081	4,14,103	n.a.	...	10	20	7	n.a.
7. Carew (2) ...	1,85,661	6,76,406	1,82,202	—7,28,116	12½	...	6½	5	...
8. Cawnpore (2) ...	2,98,605	8,12,473	3,57,885	8,76,540	15	15	15	15	20
9. Champaran (2) ...	1,72,018	2,38,742	5,35,813	4,63,413	15	12½	15	13 3/4	15
10. Deoria ...	—5,972	2,60,317	83,305	6,886	...	...	6	6	5
11. Darbhanga (2) ...	29,166	12,45,765	5,41,134	n.a.	...	5	...	6	...
12. Ganesh ...	1,61,112	57,888	—1,43,687	n.a.	10	7½	3 3/4	...	n.a.
13. Gaya ...	—50,815	n.a.	n.a.	n.a.	...	...	...	...	...
14. Dabra ...	...	...	2,26,050	1,95,588	...	...	...	3	...
15. Mysore ...	5,94,433	8,02,570	10,86,317	8,82,461	20	20	20	20	20
16. Nawabganj ...	6,70,238	4,08,769	—2,54,718	n.a.	15	15	10	...	n.a.
17. New India ...	74,891	...	87,073	1,09,384	5	5	...	5	10
18. New Savan ...	62,581	95,438	1,30,000	40,448	...	5	5	5	5
19. Ghughli ...	...	2,01,604	—26,910	n.a.	...	...	6	...	...

Table No. 76 (Contd.)

Name of Company	Net Profit				Dividend%				
	1947	1948	1949	1950	1946	1947	1948	1949	1950
20. Purtabpur ...	...	2,05,501	-46,203	2,76,311	7½	...	6	...	10
21. Ramtugger	...	2,32,743	4,86,587	1,37,172	10	10	9 4/5	15	6
22. Ratna	...	1,18,073	2,74,258	-3,84,286	12	6	6	6	...
23. Raza	...	8,84,170	3,33,965	n.a.	...	10	25	6	n.a.
24. Ryam	...	90,123	47,528	3,34,509	10	15	20	6 1/4	15
25. Samastipur ...	...	90,237	50,114	81,154	3 3/4	5	10	5 15/16	10
26. Shree Anand	...	...	509	...	...	...	3 3/4	...	...
27. Shree Hanuman	...	...	n.a.	n.a.	15	...	15	...	...
28. S. K. G.	...	1,05,996	59,885	n.a.	...	...	5	...	...
29. Baitalpur	...	68,737	97,611	2,32,831	7½	5	6 1/4	6 1/4	10
30. Mansurpur ...	...	1,05,235	-2,91,259	n.a.	...	4	...	6	...
31. Sitalpur	...	6,765	-2,12,658	...	...	...	...	...	...
32. Bihta	...	1,268	-3,79,515	...	...	...	...	...	...
33. Seorahi	.	65,972	2,05,323	n.a.	5	5	6½	10	n.a.
34. Shamli	.	-43,826	1,40,297	3,61,621	...	6	...	4.4	...
35. Seohara	...	2,41,551	4,71,184	2,32,286	15	20	...	17½	17½
36. Khatauli	...	5,66,300	6,39,680	6,60,611	15	15	15	15	15 3/4
37. Mohini	...	-1,47,271	-1,19,287	n.a.	...	...	...	...	...
n. a. Not available									

n. a. Not available

## Chapter XIII

### GUR AND KHANDSARI INDUSTRY

#### PRODUCTION OF KHANDSARI

Khandsari Sugar is mainly produced in U. P., Punjab (I), Bombay and PEPSU. Besides these, a small quantity is also produced in Madras, West Bengal, Orissa and Himachal Pradesh. U. P. alone produces 75 to 80 per cent of the total production in the whole of India. production of Khandsari in India during the last 15 years is given in the following table:

Table No. 77

*Estimated Production of Khandsari in India*

Year					Quantity in Tons				
Year					Quantity in Tons				
1936-37	...	...	...	...	92,150	1944-45	...	...	114,700
1937-38	...	...	...	...	115,190	1945-46	...	...	106,800
1938-39	...	...	...	...	92,150	1946-47	...	...	96,700
1939-40	...	...	...	...	114,510	1947-48	...	...	105,000
1940-41	...	...	...	...	183,810	1948-49	...	...	113,000
1941-42	...	...	...	...	91,480	1949-50	...	...	175,000
1942-43	...	...	...	...	195,870	1950-51	...	...	125,000
1943-44	...	...	...	...	137,330				

The above estimates include the production of Khandsari by open pan sugar factories using no mechanical or electrical power and as such differ from the figures of production compiled by the Central Board of Revenue, Ministry of Finance, New Delhi. It is no secret that substantial quantities of Khandsari Sugar evade the payment of excise duty levied at the rate of 8 annas per cwt. of sugar produced with the help of power. The total amount of excise duty realised from Khandsari since 1939-40 is as below:—

Table No. 78

*Amount of Revenue from Excise-duty on Khandsari Sugar*

Year					In 1000 Rs.				
Year					In 1000 Rs.				
1939-40	...	...	...	...	1,46	1945-46	...	...	6,32
1940-41	...	...	...	...	2,86	1946-47	...	...	2,39
1941-42	...	...	...	...	4,43	1947-48	...	...	2,00
1942-43	...	...	...	...	1,60	1948-49	...	...	2,15
1943-44	...	...	...	...	5,09	1949-50	...	...	2,23
1944-45	...	...	...	...	9,90	1950-51	...	...	2,38

There being no control on the production, price and movements of Khandsari during the season 1949-50 its production increased to 175,000 tons. A larger quantity of cane was diverted to gur and Khandsari production and as such the vacuum pan factories could not get enough supplies of cane resulting in lower production of white sugar. But the policy of the Govt. of India was modified during the season 1950-51 and the price of Khandsari sugar was statutorily fixed at Rs. 29/- in U. P.

## GOVERNMENT CONTROL

### CEILING PRICES OF KHANDSARI FOR 1950-51 AND 1951-52 SEASONS

The Ministry of Agriculture Notification No. S. R. O. 1003 dated 6-12-1950 fixed Rs. 29 as the maximum price per maund for Khandsari for the following 30 districts in the U. P.:—

Saharanpur, Muzaffarnagar, Meerut, Bulandshahr, Aligarh, Manipur, Etah Bareilly, Bijnor, Rampur, Budaun, Moradabad, Shahjahanpur, Pilibhit, Farrukhabad, Etawah, Banaras, Mirzapur, Jaunpur, Ghazipur, Ballia, Gorakhpur, Deoria, Basti, Azamgarh, Sitapur, Hardoi, Kheri, Gonda and Bahraich.

In other districts of the U. P. and other States, however, though the price was fixed to be Rs. 29/- per maund, yet a concession regarding transport and incidental charges as approved by the Central Government for crystal sugar is granted over and above the price of Rs. 29/- per maund.

### BAN ON MOVEMENT OF FACTORY, KHANDSARI AND BURA SUGAR

On 9th February, 1951, it was announced that the Government of India have banned the inter-state movement of Khandsari sugar and bura by rail, road or water with immediate effect. The inter-State movement of factory sugar had been banned previously. No crystal or Khandsari sugar or bura could be transported from any place situated in one State to any place situated in another State, except under permits issued by the Central Government, or under a military credit note. Such sugars not exceeding one seer, can, however, be carried as part of the personal luggage of a bonafide traveller.

### PRICE OF BURA SUGAR AND SUGARCANDY (1950-51)

Under a notification published in the Gazette of India in January, 1950, the Government of India, directed that the wholesale and retail prices at which bura sugar shall be sold or delivered in any area or market, shall not exceed the wholesale and retail price respectively of crystal sugar produced by vacuum pan factories fixed for that area or market.

The wholesale and retail price of sugar-candy similarly shall not be more than Rs. 5 per maund above the wholesale and retail price respectively fixed for crystal sugar produced by vacuum pan factories for that area or market.

There is, however, no control on the price of sugar-candy produced from palm juice or palm jaggery.

## NO RESTRICTION ON PALM-SUGAR (1950-51)

The Govt. of India, vide S. R. O. 996 dated 1-11-1950 have removed palm jaggery from the purview of the Sugar and Gur Control Order, 1950. There is no control on the price of sugar or candy manufactured from palm juice. There are also no restrictions on the movement of these products.

## CONTRACTS OF GUR FUTURES AND OPTIONS BANNED

There appeared to be some misapprehension regarding the scope of the ban imposed by the Govt. of India on February 15, 1950 on forward trading in gur, gur shakkar and rab. The order prescribed that no person shall enter into any futures in these commodities, or pay, or receive any margin in connection with any such futures and shall not enter into any option in these commodities. It also stated that any option in these commodities entered into before the commencement of this Order and remaining to be performed, shall be void within the meaning of the Indian Contract Act, 1872, and shall not be enforceable by law.

## BAN ON INTER-STATE MOVEMENT OF GUR AND KHANDSARI

No. SV-131(3)/50—In exercise of the powers conferred by Section 3 and 4 of the Essential Supplies (Temporary Powers) Act, 1946 (XXIV of 1946), and in supersession of the notification of the Govt. of India in the Ministry of Agriculture, No. XV-131(3)/50, dated the 15th Feb., 1950, the Central Govt. is pleased to direct that no person shall :—

- (a) offer and no railway administration shall accept for transport by railway any gur, gur shakkar or khandsari sugar from any station in the State of Uttar Pradesh or from any station outside the State which is situate within a radius of thirty miles from the border of that State, or
- (b) transport by road by means of a mechanically propelled vehicle, any gur, gur shakkar or khandsari sugar from any place in the State of Uttar Pradesh to any other place in the State which is situate within a radius of thirty miles from the border of that State or to any place outside that State,

except under a permit issued by the Central Government or by an officer or authority empowered by the Central Government in this behalf.

Provided that nothing herein contained shall apply to the transport of gur, gur shakkar or khandsari sugar not exceeding five seers by a bona fide traveller as part of his personal luggage.

## GUR PRICES DURING 1950-51 AND 1951-52

S. R. O. 1000—In exercise of the powers conferred by Clause 6 of the Sugar and Gur Control Order, 1950, and in supersession of the Notification of the Government of India, Ministry of Agriculture, S. R. O. 799, dated the 25th October, 1950, the Central Government is pleased to fix the price specified in column 2 of the Schedule hereto annexed as the Maximum price at which gur may be sold or delivered in the State specified in the corresponding entry in column 1 of the said Schedule.

Provided that any authority to whom powers under the said clause are delegated may with the previous approval of the Central Government fix any higher maximum price for any specified area or quality of gur.

### THE SCHEDULE

Name of the State	Maximum price per Md. of 82 2/7 lbs.	Name of the State	Maximum price per Md of 8 2/7. lbs.
	Rs.		Rs.
Assam ... ..	23/-	Saurashtra ... ..	23/-
Bihar ... ..	19/-	Travancore & Cochin ... ..	22/-
Madhya Pradesh ... ..	22/-	Vindhya Pradesh ... ..	22/-
Madras ... ..	19/-	Ajmer ... ..	22/-
Orissa ... ..	21/-	Bhopal ... ..	21/-
Punjab ... ..	21/-	Bilaspur ... ..	22/-
Uttar Pradesh ... ..	19/-	Coorg ... ..	23/-
West Bengal ... ..	22/-	Delhi ... ..	20/-
Hyderabad ... ..	21/-	Himachal Pradesh ... ..	23/-
Madhya Bharat ... ..	22/-	Kutch ... ..	23/-
Mysore ... ..	22/-	Manipur ... ..	23/-
PEPSU ... ..	21/-	Tripura ... ..	22/-
Rajasthan ... ..	22/-	Andamans & Nicobar Islands ... ..	23/-

No. SV-130(1)/50-51.

### RECOMMENDATIONS OF THE INDIAN TARIFF BOARD (1950) ON KHANDSARI SUGAR

(1) The immediate effect of protection to the sugar industry on the Khandsari sugar was an increase in the production of Khandsari sugar. But the imposition of excise duty by Government in 1934 and the increasing competition of factory sugar have adversely affected the Khandsari industry, with the result that until now, it has not attained the level of production of the pre-protection period.

(2) The technical improvements in the manufacture of Khandsari sugar as developed in the Research Station at Bilari can be expected to enable the Khandsari sugar industry to survive and withstand the competition of the vacuum pan factories.

(3) The improved process of manufacture of Khandsari sugar as developed at the Bilari Research Station has improved the quality of Khandsari sugar and is a distinct improvement on the older method.

(4) In order to encourage the Khandsari sugar industry, Khandsari sugar should be exempted from payment of excise duty and such technical assistance as is necessary should be given to encourage its production in efficient units and on economic lines.

## SOME SUGGESTIONS FROM KHANDSARS OF U. P.

1. "The Sugar factories should be ensured supply of cane which they are at present obtaining through the cane marketing societies. The growers who enter into a contract with the society to supply a fixed amount of cane should be compelled to honour the contract faithfully. It is the liberal dealing of the cane societies with the cultivators until now, that the cultivator diverted his cane, which he previously contracted with the societies, to the manufacture of gur or other products, when the prices of these commodities were higher, thus depriving the sugar mills of their stipulated quantity of cane.

2. In the areas reserved for the sugar mills, the Govt., should issue licences to the established manufacturers of gur and other cane products. To define the established manufacturers a year of 1940 or near about be taken as the basic year. The licences to these manufacturers should be given to the extent of their previous crushing taken on average, which can be ascertained from their records, and the condition of the licence should be strictly adhered.

3. If the Govt. desires to close down certain established cottage industries of sugar products, in the areas reserved for the mills in their interest adequate compensation should be paid to them. Since, most of the manufacturers of gur or other allied products are men of small means and it is the only source of their livelihood, to throw them out of employment without compensation is not expected of a democratic state of the people.

4. In the areas which are neither reserved nor assigned for sugar mills, the cottage industries of gur and other products should be left free to develop.

5. Some fourteen years ago the Central Govt., established at Bilari, Dist. Moradabad, a research station for the development of gur and Khandsari industry, where, after spending a large sum of public money, they evolved improved process of sugar manufacture, whereby it is possible to obtain sugar of quality comparable to mill sugar and the yield is also better by about 1.5%. These improved processes are taken up commercially only by a few Khandsari manufacturers and the Govt. should ask the established Khandsari manufacturers to adopt the improved processes, which is possible by a few alterations and additions in their existing establishments.

6. A schedule of maximum prices as fixed now may continue and also to prevent future rise and hoarding of these commodities by the merchants, we suggest to stop advances by the banks on these commodities, which if not stopped, should not be allowed to run for more than a month, which is the usual time taken to dispose of the consignment of these commodities normally.

7. Quicker and proper arrangements for the transport of these products from the production centres to the consumption markets be made. This will tend to keep the prices all over the country uniform.

8. A sliding scale system of cane prices should be adopted. This will induce the factories to start early crushing and the cultivators to sell cane in the later part of the season.

9. Intensive cultivation of cane should be advocated, whereby more can be produced without any increase in the acreage.

10. Those sugar factories which are situated in the areas where cane is in short supply should be shifted to the other parts of the country where cane supply is abundant, viz., Bombay or other southern States.

11. Wherever abundant cane supply is available, the existing sugar factories in that area should be asked to expand their plants. In all cases either, due to the expansion of the plants or due to relocation of the factories, where old established industry of gur or khandsari be required to be closed they should be adequately compensated, as many of these khandsari factories were established even before the establishment of sugar factories in India.

12. While considering the issue of new licences for the establishment of new sugar mills, preference should be given to the applications from the old established khandsari or gur manufacturer in that area, whether, individually or corporatively. They should be rather encouraged, in the areas where they are situated in large numbers and there is scope for the establishment of a sugar mill, to undertake co-operatively establishment of the sugar mill."

#### **TARIFF BOARD'S (1950) OBSERVATIONS ON GUR INDUSTRY**

Gur production in India did not suffer any set-back on account of the grant of protection to the sugar industry. On the contrary, the expansion of its production was almost parallel to that of white sugar except in 1939-40, when gur production declined though production made a considerable headway.

The Provincial Governments should make arrangements for keeping a proper record of province-wise imports and exports of gur, so that it may be possible to estimate more accurately the consumption of gur.

The new technique of clarification of cane juice and storage of gur mentioned in paragraph 35 should be examined by the Provincial Governments and, if it is found to be efficient, it should be made widely known to gur producers.

The cost of production per maund of gur exclusive of the price of cane, ranges from Rs. 2-10-6 in U. P. to Rs. 7-6-0 in Assam.



Table No. 79

Monthly average price of Khandsari Sugar during 1950 and 1951

Market	Year	January	February	March	April	May	June	July	August	September	October	November	December
Ambala ...	1950	48 8	55 15	53 5	56 2	59 11	61 1	67 7	67 6	65 12	59 9	45 0	48 7
	1951	38 10	32 0	32 0	...	...	...	...	30 0	30 0	32 10	33 0	33 0
Delhi ...	1950	45 2	55 15	51 12	53 2	60 7	60 0	64 3	65 0	63 11	62 15	45 6	46 0
	1951	50 0	31 14	31 14	31 14	31 14	31 14	31 14	31 14	31 14	31 14	31 14	31 14
Hapur ...	1950	38 14	48 7	40 3	49 10	54 1	54 10	59 10	60 12	56 12	50 11	37 12	37 0
	1951	37 11	40 0	33 8	39 1	39 4	37 8	35 9	36 0	33 6	33 3	30 4	30 11
Calcutta ...	1950	...	...	...	...	...	60 13	61 15	63 2	71 5	63 3	51 13	4 51
	1951	49 1	8	...	...	...	...	44 2	45 11	43 1	42 8	34 3	34 15

Table No. 80

*Yearly Average of Gur and Khandsari prices*

Year	Khandsari						Gur						
				Average	Maximum			Average			Maximum		
				Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.			
1935	...	...	...	...	7 13 0	8 8 0	...	...					
1936	...	...	...	...	6 13 0	7 4 0	...	...					
1937	...	...	...	...	6 0 0	7 0 0	2 15 9	4 10 0					
1938	...	...	...	...	7 12 0	9 4 0	4 7 7	7 7 0					
1939	...	...	...	...	9 2 0	11 12 0	6 12 3	8 13 0					
1940	...	...	...	...	10 7 0	11 0 0	5 1 3	8 8 0					
1941	...	...	...	...	8 6 0	9 8 0	3 4 2	5 0 0					
1942	...	...	...	...	14 1 0	15 0 0	6 0 4	17 3 0					
1943	...	...	...	...	16 3 0	17 8 0	12 13 4	24 0 0					
1944	...	...	...	...	17 12 0	19 4 0	12 15 7	24 0 0					
1945	...	...	...	...	18 3 0	20 0 0	9 5 11	15 8 0					
1946	...	...	...	...	22 7 0	30 0 0	13 7 0	21 13 0					
1947	...	...	...	...	34 13 0	38 12 0	17 9 9	38 10 0					
1948	...	...	...	...	25 7 0	30 0 0	11 9 9	18 0 0					
1949	...	...	...	...	34 0 0	62 9 0	17 13 0	32 2 1					
1950	...	...	...	...	54 13 0	71 5 11	27 13 0	39 0 0					
1951	...	...	...	...	36 0 0	50 0 0	19 1 0	25 0 0					

Table No. 81

*Calculated Net Production of Gur in the Indian Union for Direct Consumption*

Year	Quantity ('000 omitted)						
1939-40	...	...	...	...	...	...	1,922
1940-41	...	...	...	...	...	...	2,824
1941-42	...	...	...	...	...	...	2,178
1942-43	...	...	...	...	...	...	2,338
1943-44	...	...	...	...	...	...	2,836
1944-45	...	...	...	...	...	...	2,837
1945-46	...	...	...	...	...	...	2,715
1946-47	...	...	...	...	...	...	3,178
1947-48	...	...	...	...	...	...	3,503
1948-49	...	...	...	...	...	...	2,764
1949-50	...	...	...	...	...	...	2,743
1950-51	...	...	...	...	...	...	3,132

Table No. 82

*Net Production of Gur in Different States in India*

(In 1000 tons)

States						1948-49	1949-50	1950-51
U. P.	...	...	...	...	...	1,322	1,381	1,602
Bihar	...	...	...	...	...	23	...	34
Punjab	...	...	...	...	...	264	228	273
Madras	...	...	...	...	...	349	319	373
Bombay	...	...	...	...	...	250	312	322
Assam	...	...	...	...	...	56	58	49
Madhya Pradesh	...	...	...	...	...	60	50	47
Orissa	...	...	...	...	...	93	88	85
West Bengal	...	...	...	...	...	77	62	61
Hyderabad	...	...	...	...	...	118	98	94
Madhya Bharat	...	...	...	...	...	28	13	20
Mysore	...	...	...	...	...	42	43	46
PEPSU	...	...	...	...	...	34	46	44
Rajasthan	...	...	...	...	...	17	19	30
Saurashtra	...	...	...	...	...	13	12	38
Vindhya Pradesh	...	...	...	...	...	3	2	4
Bhopal	...	...	...	...	...	3	2	1
Tripura	...	...	...	...	...	5	5	5
Delhi	...	...	...	...	...	4	2	2
Others	...	...	...	...	...	3	3	2
Total						2,764	2,743	3,132

Table No. 83

*Yearly Average price of Gur per Maund*

Year (Nov.—Oct.)	Indian Union											
	Meerut			Bhagalpur			Calcutta			Madras		
	Ahmed- nagar	Average Price	Maximum Price	Ahmed- nagar	Average Price	Maximum Price	Ahmed- nagar	Average Price	Maximum Price	Ahmed- nagar	Average Price	Maximum Price
1936-37	...	Rs. as. p.	Rs. as. p.	...	Rs. as. p.	Rs. as. p.	...	Rs. as. p.	Rs. as. p.	...	Rs. as. p.	Rs. as. p.
1937-38	...	2 10 8	2 1 3	...	3 13 4	3 2 0	...	3 3 5	2 15 9	...	4 10 0	...
1938-39	...	3 6 5	3 7 4	...	5 7 6	4 9 4	...	5 7 6	4 7 7	...	7 7 0	...
1939-40	...	6 10 8	6 7 4	...	6 9 3	6 9 3	...	7 8 11	6 12 3	...	8 13 0	...
1940-41	...	5 1 8	4 12 6	...	5 8 4	4 15 5	...	5 0 2	5 1 3	...	8 8 0	...
1941-42	...	3 1 2	2 15 8	...	3 14 2	3 1 5	...	3 4 6	3 4 2	...	5 0 0	...
1942-43	...	4 14 0	3 14 3	...	10 2 7	4 6 7	...	6 12 4	6 0 4	...	17 3 0	...
1943-44	...	9 1 5	10 11 6	...	19 8 0	9 15 8	...	14 14 6	12 13 4	...	24 0 0	...
1944-45	...	7 5 11	8 2 0	...	24 0 0	9 12 8	...	15 9 6	12 15 7	...	24 0 0	...
1945-46	...	7 11 4	8 3 8	...	...	9 4 1	...	12 4 6	9 5 11	...	15 8 0	...
1946-47	...	10 11 6	13 7 7	...	...	15 12 5	...	13 12 7	13 7 0	...	21 13 0	...
1947-48	...	...	17 5 7	...	...	16 1 9	...	19 6 0	17 9 9	...	38 10 0	...
1948-49	...	11 5 6	12 5 6	...	...	9 14 10	...	12 13 2	11 9 9	...	18 0 0	...
1948-49	...	15 4 3	13 5 8	...	16 2 4	17 4 1	...	16 14 1	15 12 6	...	30 4 0	...

Table No. 84

Monthly Average Price of Car Per Maund

Market/Year	January	February	March	April	May	June	July	August	September	October	November	December	Average
<i>Madræs—</i>													
1949	12	8	10	13	11	6	14	14	6	15	8	0	15
1950	24	10	8	24	8	0	26	0	7	32	3	5	33
1951	...	...	...	...	20	0	0	20	0	0	19	14	8
<i>Mueçaffarnager—</i>													
1949	10	4	4	11	14	9	13	6	10	14	9	3	15
1950	19	4	5	22	14	5	21	1	11	25	6	0	29
1951	19	0	0	19	0	0	19	0	0	19	0	0	19
<i>Meerut—</i>													
1949	10	5	0	11	11	7	12	13	4	14	3	7	14
1950	19	12	0	23	3	6	20	0	9	24	5	2	28
1951	18	8	0	18	0	0	19	0	0	19	0	0	19
<i>Patna—</i>													
1949	17	8	7	17	9	9	18	3	10	18	4	9	17
1950	15	15	2	21	0	0	20	11	2	21	11	10	22
1951	19	0	0	18	0	0	18	0	0	19	0	0	19
<i>Abmañnager—</i>													
1949	11	5	4	12	8	0	13	13	4	14	4	9	15
1950	22	12	0	29	2	0	29	4	0	30	12	0	31
1951	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Bhagalpur—</i>													
1949	12	0	0	10	8	0	11	10	8	10	14	0	11
1950	15	15	2	16	3	0	18	10	0	20	7	0	21
1951	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Calcutta—</i>													
1949	11	13	7	11	12	10	14	9	6	14	0	0	14
1950	19	0	0	22	6	3	27	9	9	27	1	5	27
1951	22	0	0	22	0	0	22	0	0	22	0	0	22

Table No. 85

*Inter-State Imports and Exports of Gur, Rab and Molasses in India for 1947-48 to 1949-50*

States	Exports			Imports		
	1949-50 (Tons)	1948-49 (Tons)	1947-48 (Tons)	1949-50 (Tons)	1948-49 (Tons)	1947-48 (Tons)
Assam ...	74	122	25	11,148	14,942	7,301
West Bengal ...	11,616	7,583	3,039	73,610	72,750	40,724
Bihar ...	13,338	8,226	8,718	19,450	28,901	8,308
Orissa ...	1,954	232	257	3,358	2,613	3,414
Uttar Pradesh ...	2,68,024	2,50,205	2,11,686	10,596	7,126	2,353
Punjab ...	51,603	20,947	2,428	41,066	50,789	42,303
Delhi ...	5,908	10,249	2,385	2,328	1,031	1,500
Madhya Pradesh ...	910	897	304	53,963	51,605	50,581
Bombay ...	28,586	51,967	35,728	130,054	65,152	69,306
Madras ...	68,887	85,023	72,737	38,911	55,144	30,511
Rajasthan ...	1,354	841	1,380	47,680	87,132	64,917
Madhya Bharat ...	9,093	1,772	2,627	14,609	6,901	18,387
Hyderabad ...	65	326	113	10,637	4,077	11,322
Mysore ...	3,359	10,866	3,069	7,361	1,095	976
Kashmir ...	...	...	...	...	...	1,129

Table No. 86

*Statewise per capita Consumption of Gur in lbs.*

State	1941	1942	1943	1944
Uttar Pradesh ...	49.1	30.1	34.9	40.1
Punjab (I) ...	33.6	29.3	29.4	36.0
Bihar ...	6.2	11.4	5.4	10.4
West Bengal ...	15.4	14.1	12.8	15.5
Madras ...	12.7	7.4	8.9	11.3
Bombay ...	23.0	31.7	35.5	40.8
Assam ...	10.5	9.2	10.2	9.7
Madhya Pradesh ...	13.3	9.8	10.6	9.6
Orissa ...	10.5	9.8	9.9	10.8
Delhi ...	4.9	4.7	4.6	4.5
Mysore ...	9.2	10.3	13.2	11.3
Hyderabad ...	11.1	8.1	8.3	8.2
Rajputana ...	17.0	11.1	11.3	8.9
ALL INDIA ...	19.7	16.1	16.9	19.4

## A NOTE ON THE PRODUCTION OF PALM-GUR

*Present Position of Palm Cultivation in India\**—It has been estimated that the number of existing palm trees in India is about 5 crores, which can yield about a million tons of gur. At present, all these palms are not being utilised for production of palm gur. No reliable data of the annual production of palm gur in the country are available. According to the Madras Prohibition Department, however, the production of palm gur during the period January, 1948 to August, 1949, was about 23,000 tons. This was due to the efforts made by about 11,000 co-operative societies especially set up in the villages for the production of palm gur. This production of palm gur was obtained in two seasons. Thus the production per season in Madras may be placed at about 12,000 tons. The Industries Department of the West Bengal Government has estimated the production of palm gur at about 5,000 tons annually. There is, therefore, considerable scope for the expansion of the industry in Bengal and Madras as well as in other parts of the country but its further development depends on proper planning and State aid.

*Gur Yield from Palms\**—About one maund of gur per tree per annum can be produced from the cocoanut; half a maund of gur per tree per annum can be produced from palmyra or tad, and one-fourth of a maund of gur per tree per year can be produced from date palms. It has been estimated that the average yield of gur per acre from a palm plantation having 400 date palm trees of which 200 may be assumed to be tapped every year, will be about 5,360 lbs. The yield of palmyra gur per acre on the same basis as mentioned above, has been estimated at about 6,000 lbs.

Date palm gur contains 72.01 percent of sucrose as compared to 59.71 per cent in cane gur. The protein content and calorific value are also comparatively high in date palm gur which is, therefore, more nutritious.

*Cost of Manufacture of Palm Gur\**—It is difficult to estimate the cost of manufacture of palm gur. The Palm Gur Adviser to the Government of India has furnished estimates of cost of manufacturing one maund of gur from date palm and from palmyra, as shown in the following statement:—

						Cost of manufacturing one maund of gur from	
						Date Palm	Palmyra Palm
						Rs. as. p.	Rs. as. p.
1. Raw Materials—							
(a) Tree rent	...	...	...	...	...	1 0 6	0 12 0
(b) Tapping wages	...	...	...	...	...	7 4 0	9 0 0
(c) Pots	...	...	...	...	...	0 6 0	0 7 0
(d) Chemical	...	...	...	...	...	0 2 0	0 2 0
(e) Depreciation	...	...	...	...	...	0 1 0	0 1 0
Sub-Total						8 14 0	10 6 0

\*Vide page 73 I. T. B. Report (1950)

2. *Boiling—*

(a) Fuel and chemicals	...	...	...	...	4	1	0	5	0	0
(b) Wages	...	...	...	...	6	9	0	6	9	0
(c) Sundries	...	...	...	...	0	1	0	0	1	0
Sub-Total					10	11	0	11	10	0
TOTAL					19	9	0	22	0	0

It will be seen from the above table that the principal item in the cost of manufacture of gur from palm is wages, being about Rs. 13-13-0 in the case of date palm and about Rs. 15-9-0 in the case of palmyra palm whereas the rent of the tree is hardly about a rupee in the case of date palm and Re. 0-12-0 in the case of palmyra palm. Fuel and chemicals constitute about 20 percent of the cost of manufacture. It would be possible to reduce the cost of manufacture of palm gur if the expenses under fuel and chemicals and wages were appreciably reduced.

## 1949-50 STATISTICS

There is no centralised production of palm gur. The industry is carried on in a decentralised manner, all over the country. The main producing States are Madras and West Bengal (and also East Pakistan). The latest figures of palm gur production compiled by the Palm Gur Adviser to the Govt. of India are given below in tons.

					1948-49		1949-50	
					Palm Gur	Rab	Palm Gur	Rab
West Bengal	...	...	1,918	5,755	2,504	7,510		
Madras	...	...	15,112	...	23,344	...		
Bihar	...	...	n.a.	n.a.	843	...		

n.a. Not available.

## DETAILS OF THE METHOD OF PRESERVATION OF NEERA

Palm trees are tapped in the usual way. The pot used must be scrupulously cleaned every time before use. In this pot is placed a small amount (to be determined under local conditions) of Soda-bi-Carb or Soda Carb. Instead of the two salts of sodium, lime may be used but in this method soda salts are preferred. Along with the sodium carbonate, the minimum amount of (about 10 miligrams) the preservative (i.e., Sulphonilamide) required may be placed in the pot before it is hung up. In many cases this initial addition of sulphanilamide may not be necessary. The Neera can be kept fresh for some hours if sufficient amounts of either Soda-bi-Carb or

Sodium Carbonate are added to keep Neera quite alkaline, i.e., above 8 pH. This amount of the sodium salts will have to be determined locally as it depends upon the quality of Neera and its seasonal variation.

When Neera is collected in the morning or evening as the case may be, it is allowed to settle for some time in a large container. The suspended impurities settle down, and the sparkling water white clear Neera is decanted or syphoned into large containers for transport. Into these containers sulphanilamide is added in the proportion of 8 to 60 parts per million parts of Neera. If Neera is to be preserved for a short period (for 60 to 120 hours) the amount of preservative required is below 30 parts and may be as low as 8 parts per million. If Neera is to be kept for longer durations higher amounts not more than 60 parts per million parts need be added. While the preservative is being added, Neera may be tested for acidity and the pH kept at or above 8.

After the preservative has been added, Neera must be vigorously stirred so as to mix the preservative quite intimately. Neera thus prepared may be kept in a cool place or under shade and may then continue to be fresh for days. After a few days there develops a slight yellow tinge in colour, but Neera continues to be the same as if it was freshly drawn.



## **Chapter XIV**

### **MARKETING TRADE AND DISTRIBUTION**

#### **A REVIEW OF THE ACTIVITIES OF THE FORMER INDIAN SUGAR SYNDICATE**

The Syndicate was formed on a voluntary basis in May, 1937, and started functioning in July, 1937. The original list of its membership included all the sugar mills in U. P. and Bihar, one mill in Sind and one mill in North Bengal and two mills in the Bombay Deccan. The immediate object for which it was brought into existence was to enable its members to sell sugar at a higher level of prices than what was prevalent at the time, the price of sugar having declined from Rs. 8-2-0 per maund in 1935-36 to about Rs. 6-0-0 per maund in July, 1937. The Syndicate pooled the stocks of the member mills and gradually released such stocks by issuing periodical quotas. By this means, it succeeded in raising the price of sugar by about Re. 1 in five or six months. It has been claimed on behalf of the Syndicate that it was able to raise the price of sugar to an economic level, thereby saving the sugar industry from collapse. This claim may be justified to some extent. The Tariff Board, however, received definite evidence that in 1937, some of the sugar mills in U. P. and Bihar were making good profits by selling sugar even at a price of Rs. 6-0-0 per maund and that such mills were expecting to make a further reduction of cost by Re. 1-0-0 or Rs. 1-8-0 per maund in a year or two, so as to bring the price down to Rs. 4-8-0 per maund, which would have been nearly on a parity with the price of Java sugar at that time. This shows that the so-called uneconomic price of Rs. 6-0-0 per maund ruling at that time was definitely remunerative for the efficient mills. It would, therefore, follow that the Syndicate's price-raising policy was designed to enable inefficient mills to make reasonable profits. This led to the further consequence that the more efficient mills were able to make excessive profits. It may also be reasonably inferred that if the Syndicate had not been brought into existence, the inefficient mills would have been compelled either to improve their efficiency or go into liquidation. In the latter event, however, there is no reason to suppose that a vacuum would have been created. In all probability, such mills would have been taken over by the more enterprising business firms and gradually raised to a higher level of efficiency. And such a development would have been to the ultimate advantage of the industry as a whole and, therefore, conducive to the good of the public as well. Moreover, if indeed, the Syndicate was able to prove itself serviceable to the sugar mills, many of the sugar mills would not have broken away from the Syndicate within six months of its formation (i.e., in November, 1937), and thereby made its position so precarious that it was compelled to take the unusual step of seeking legal protection from the Governments of U. P. and Bihar. However, let us follow the subsequent history of the Syndicate. In 1940, the U. P. and Bihar Governments found that the Syndicate, by adopting a policy of unduly high price of sugar, had been neglecting the interests of the consumers and also injuring the long-term interest of the sugar industry itself. They,

therefore, withdrew the legal recognition from the Syndicate in June, 1940. This was immediately followed by the resignation of many member mills and, in consequence, the Syndicate was once more brought to the verge of a collapse. Thereupon the Syndicate approached the two Provincial Governments once again, regretted the mistakes of its past policy and asked the two Governments for the restoration of its legal recognition, agreeing at the same time, to submit to such control as might be imposed by the two Governments. The Governments of U. P. and Bihar restored the recognition, but simultaneously imposed an elaborate system of control on the Syndicate. They not only set up a Sugar Commission to enforce Government policy from above, but also appointed an I. C. S. Officer as the chief executive of the Syndicate to control it from within by supervising its day-to-day administration. This would show that the two Governments did not have much faith in the bonafides of the Syndicate. If, inspite of this obvious lack of confidence in the Syndicate's willingness and ability to serve the public interest, the two Governments restored recognition to the Syndicate, they must have presumably done so in the hope that the Syndicate would, in course of time, be sufficiently disciplined so as to subordinate the interests of its members to the demands of public good. It is true that the Syndicate did not go against the public interest during the period from 1940 to April, 1942, but that was the period when it was subjected to an elaborate system of control by the two Provincial Governments. Once it was made free from Government control, as from December, 1947, to August, 1949, the Syndicate's inherent anti-social character re-asserted itself; and in order to bring about an excessive rise in the level of prices, it deliberately launched on a policy of creating a psychology of scarcity in the market. It no doubt succeeded in this policy, but its success was so phenomenal that the public was made to pass through a crisis of scarcity even when, by all available accounts, the supply in the country was adequate to meet the requirements of consumption for the remaining months of the year. Inspite of the Syndicate's record of activities, the U. P. and Bihar Governments have stated that they would favour the continuance of the Syndicate, adding, however, that the Syndicate may yet be converted into a useful institution by persuading it to cancel or amend such of its Articles of Association as had prevented the Syndicate in the past from enforcing a maximum price on its members and also by subjecting it once again to an elaborate system of control as had been imposed in 1940. The Board have carefully considered this suggestion but were unable to agree with it. The main object with which the Syndicate was formed in 1937 was to keep the price of sugar as high a level as possible. Its Articles of Association have been drawn up with that end in view. In carrying out this purpose, it had adopted measures which have resulted in perpetuating inefficiency and retarding the progress of the industry. For under its Articles regarding release of quotas, the efficient mills which produce a better quality of sugar and/or have an efficient selling organisation, are compelled to slow down their sales to the pace set by the inefficient mills, which may produce an inferior quality of sugar and/or have no effective selling organisation. Naturally, under such conditions, there is considerable disincentive for efficiency. It may be true that the Syndicate has managed so far to ensure the survival of some of the less efficient sugar mills in U. P. and Bihar and thereby contributed in some degree to stability in the industry and in the economy of the two provinces. But it is no less true that its policy has arrested progress and thereby defeated the purpose of protection and other kinds of State

assistance that have been extended to the industry. Moreover, the representatives of several sugar mills of U. P. and Bihar have stated that the Syndicate has held them down to the level of the most inefficient mills and that, if they are freed from the trammels of the Syndicate, they can achieve higher efficiency within a short time. These mills have demanded that they should be given the freedom to make progress. The Board do not see why such sugar mills as want to go out of the Syndicate should not be allowed to do so. The sugar industry has now had a history of over 20 years. Many of the sugar mills are managed by successful business firms. The Board do not see why it should be necessary to compel them to remain in an organisation which they do not consider to be helpful to them in any way. It may be desirable that the mills should have an association for certain well-organised common purposes, such as representing the industry as a whole in negotiations with Government or with labour unions. As a matter of fact, the sugar mills in different regions have such associations of their own, viz., Indian Sugar Mills' Association, South Indian Sugar Mills' Association, Madhyabharat Sugar Mills' Association, and so on. Similarly, the cotton mills have their own associations: and so also the jute mills. But all such associations are invariably formed on a voluntary basis and they enlist and retain the loyalty and co-operation of their members by their usefulness and not through legal compulsion imposed by Government. The Board consider it wholly unnecessary and undesirable that an association like the Syndicate should be legally imposed on the sugar mills, of U. P. and Bihar. Such an imposition is wrong in principle. It has also worked unsatisfactorily in practice. And, finally, the Syndicate, by the part it has played in the recent sugar crisis, has shown that it cannot be trusted to take a broad view of its obligations to the community or even of the long-term interests of the industry as a whole. The Board, therefore, recommended that the U. P. and Bihar Governments should rescind clause (a) of Section 11 of the Sugar Factories' Control Acts, and the Rule made thereunder which requires all factories in the two provinces to be members of the Syndicate as a condition precedent to their obtaining the annual crushing licence. This only means that the U. P. and Bihar Governments should cease to be a party to the imposition of the Syndicate on all the sugar mills in the two provinces. As to the further question whether or not the Syndicate should continue as a voluntary association of some or all of the sugar mills in the two provinces, the Board considered it proper and desirable that the matter should be left to be decided by the mills themselves, without any interference from Government (vide para 80 of I. T. B. Report, 1950).

#### **FINDINGS OF THE INDIAN TARIFF BOARD ON (I) THE FORMER SUGAR SYNDICATE AND (II) THE SUGAR CRISIS OF 1949**

(1) In recent years, the Indian Sugar Syndicate's control over its members has been ineffective. The Syndicate does not appear to have ever tried to improve the efficiency of its members or carry out research in respect of sugarcane and sugar. Nor does it appear to have ever taken any effective steps to prevent its members from charging high premiums for sugar in conditions of scarcity. On the contrary, it has, whenever free from control, abused its monopolistic powers so as to help its members make large gains at the expense of the consumer.

(2) Although the Syndicate assisted the industry to tide over the crisis of 1937-38 by eliminating—internal competition, it failed to pay due regard to the interests of consumers by

keeping the price level unduly high. As U. P. and Bihar manufacture about 75 per cent of the total production in the country and as these two provinces alone produce a surplus above their own requirements, the Syndicate by its legal status as the exclusive selling organisation for U. P. and Bihar sugar, acquired a virtual monopoly in respect of indigenous sugar. Taking advantage of this position, the Syndicate manipulated the release of sale quotas in such a manner that prices continued to rise since 1938.

(3) In fixing the new price for sugar at Rs. 35-7-0 per maund immediately after decontrol in December, 1947, certain demands, such as, an additional profit of Rs. 2 per maund of sugar and an extra allowance of Re. 0-5-6 for manufacturing charges made by the Syndicate, which, though accepted by the Government of U. P., were unreasonable. In fixing this price the Government of U.P. and Bihar and the Syndicate did not have sufficient regard for the interests of the consumers.

(4) Subsequent to decontrol of sugar in December, 1947, the Syndicate showed its reluctance to submit itself to control and supervision by the Sugar Commission of the Governments of U. P. and Bihar.

### SUGAR CRISIS AND THE SYNDICATE'S ROLE

(5) In its dealings with the Government of U. P. and the Sugar Commissioner regarding the release of sugar quotas in 1949, the Syndicate was far from being straight-forward.

(6) The control of the Sugar Commission prior to the introduction of war-time central control over the distribution of sugar had been so systematic and effective that there was no opportunity for the Syndicate to abuse its monopolistic powers to the detriment of public interest. If, with the lapse of central control, the Governments of U. P. and Bihar had taken adequate steps to exercise proper control over the Syndicate, sugar would have been distributed in a reasonable manner.

(7) The main contributory factors of the sugar crisis of July to August, 1949 were (a) large and rapid quota releases by the Syndicate in 1949 and (b) excessive wagon supply.

(8) By its improper policy of quota releases and approaching the Government of India in June, 1949 to negotiate for the export of sugar, the Syndicate created a psychology of scarcity in the country which led to hoarding by merchants' and consumers like confectioners.

(9) The Government of U. P. in directing the Syndicate to release the remainder of 20 per cent of the season's sugar production committed "an error of judgment." It is an error of judgment because if the Government had tried to ascertain the relative position regarding the released quotas and the actual despatches from month to month, they would not have sanctioned the release of the meagre balance of 20 per cent with six months of the year still remaining to be covered. Even supposing that an error of judgment had been committed by the U. P. Government in the matter, the Syndicate cannot absolve itself of the charge of lack of sense of responsibility both in the matter of quota releases and in approaching the Govt. of U. P. over the head of the Sugar Commissioner. Undoubtedly there was a lack of co-ordination

between the Government of U. P. and the Sugar Commissioner, which gave an opportunity to the Syndicate to mislead the Government and ignore the Sugar Commissioner.

(10) The explanation tendered by the Chairman of the Syndicate in the matter of quota releases by the Syndicate goes to show that the Syndicate had two minds and was speaking with two different voices before the Government and the public and the Government of U. P. and Central Government.

(11) It has been suggested by the Syndicate that one of the reasons for the crisis was large scale hoarding by merchants and consumers. Even granting that hoarding on a large scale by merchants and consumers took place, it cannot be gainsaid that such hoarding became inevitable as a result of the large and rapid releases of quotas by the Syndicate itself.

(12) The actual average monthly despatches of sugar during February and March, 1949 were higher than those during April to July, 1949 and it was not really necessary for Government to intervene in the matter of wagon supply at that stage.

(13) The actual average monthly despatches during the five months April to August, 1949 were excessive. These despatches must have been largely facilitated by the allotment of more wagons than was necessary. In the public interest this matter should be fully investigated.

(14) In regard to the suggestion that the increased consumption of sugar due to a rise in the purchasing power of the people and the shift of demand from gur to sugar on account of the high price of gur, was also responsible for the crisis, it should be stated that, even granting that there was a net increase in the demand for sugar, such increase could not have been so sudden or so large as to account for the sudden rise of scarcity, particularly because the shift of demand from gur to sugar took place after sugar had become scarce and, therefore, the shift in demand from gur to sugar was the effect of the scarcity and not the cause of it.

(15) Government should institute an inquiry into the allegation that sugar intended for consumption in India was in fact moved into Eastern and Western Pakistan on an appreciable scale in 1949.

(16) Though sugar was decontrolled from December, 1947 and control over the Sugar Syndicate reverted under the law to the U. P. and Bihar Sugar Commission, the Government of India ought to have taken even closer interest than they did in view of the all-India importance of sugar.

(17) If all the stocks with the factories and merchants had been frozen about 26th August 1949 when the U. P. freezing orders were issued, the total available supply would have practically sufficed to meet the normal requirements of the country until the commencement of the new season.

(18) It would appear that (i) owing to the unilateral action of the U. P. Government in freezing the stocks with the U. P. factories alone, an opportunity was given to the sugar mills outside U. P. as well as to the mills' selling agents and dealers and merchants all over the country to send large stocks of sugar underground; (ii) if co-ordinated and synchronous action had been taken by the Central and Provincial Governments, the crisis of sugar scarcity could have been largely held in check.

(19) The measures adopted by the Central Government to allocate and distribute the available stocks of sugar have been satisfactory.

(20) Considering the present balance of payments position, the possibility of imports of sugar in the next one or two years is rather small. That being so, it is necessary and desirable that the system of all-India control over distribution that had been adopted from April, 1942 to December, 1947 and which has recently been reimposed with effect from 2nd September, 1949, should be continued until such time as the supply available is about 14 lakh tons, either by an increase in production or by supplementing internal production by adequate imports. In order that such control may be effective, it is necessary that the present machinery for the collection and compilation of sugar statistics should be strengthened so as to be able to obtain correct and complete statistics of production, stocks and despatches. Sugarcane and sugar prices should be statutorily fixed by the Central Government after due consultation with the representative of cane growers, the sugar industry and the Provincial Governments. If and when, however, it is found that, owing to an increase in production or fall in demand or large imports of sugar or a combination of some or all of these factors, the available supply is definitely in excess of demand, the question of discontinuing the control should be reviewed.

(21) Although there is some force in the suggestion that if the control on sugarcane and sugar prices is removed, the production of sugar would increase, we are unable to recommend decontrol in the present circumstances.

(22) For the reasons explained, we recommend that the Governments of U. P. and Bihar should rescind clause (a) of Section XI of the Sugar Factories Control Acts and the Rule made thereunder which requires all factories in the two provinces to be members of the Syndicate as a condition precedent to their obtaining the actual crushing licence.

(23) As to whether or not the Syndicate should as a voluntary association of some or all the sugar mills in the two provinces, it is considered proper and desirable that the matter should be left to be decided by the mills themselves without any interference from Government.

### **GOVERNMENT RESOLUTION ON TARIFF BOARD REPORT**

The Resolution No. 33(1)-T.B./50 dated the 6th March, 1950, issued by the Govt. of India, Ministry of Commerce, New Delhi, on the Subject was as follows :—

“The Government of India have considered the Report of the Indian Tariff Board on the Sugar industry. The recommendations therein cover a very wide field. On the more urgent among them, Government have decided after careful consideration to take action as indicated hereafter. Government will examine the other recommendations and announce their decisions thereon.

#### **I—THE INDIAN SUGAR SYNDICATE**

The Government of India agree with the conclusion (vide 22 and 23 above) and propose to move the U. P. and Bihar Governments in this behalf.”

#### **II—SUGAR CRISIS**

The Board has stated that the main contributory factors which caused the Sugar crisis of July-August, 1949 were :—

- (a) large and rapid quotas released by the Syndicate; and
- (b) excessive wagon supply.

In view of the decision reached with respect to the Syndicate it is not necessary to dilate on the question of these particular quota releases. On the question of excessive wagon supply the Board has recommended that in the public interest this matter should be fully investigated.

The Board has also recommended that 'Government should institute an enquiry into the allegation that sugar intended for consumption in India in fact moved into Eastern and Western Pakistan on an appreciable scale in 1949.' and this also possibly contributed to the scarcity.

Government accept these recommendations and necessary action will be taken to implement them."

Further, in the course of the debate on the Sugar in the Constituent Assembly (Legislative) on 24th December, 1949, Government stated that 'to the extent the Tariff Board Report on the sugar industry does not cover any aspect of the sugar crisis which occurred during July-August, 1949 Government will arrange to have a full inquiry made by a body which thoroughly satisfies the House.

#### **U. P. AND BIHAR GOVERNMENTS WITHDRAW RECOGNITION TO SYNDICATE**

The Notification No. 1071-S/XVIIIIC-64/1950 dated 23rd March, 1950, issued by the Government of U. P. Industries (c) and Excise Department, Lucknow directed an amendment in Form 6 of Appendix III of the U. P. Sugar Factories Control Rules. It will be noted from the same that condition No. 2 reading as follows was deleted and that the other conditions were re-numbered accordingly.

"The Licensee shall be a member of the Indian Sugar Syndicate Ltd. through out the period of this license."

#### **SUGAR SYNDICATE GOES INTO VOLUNTARY LIQUIDATION**

After the withdrawal of recognition by the two Governments of U. P. and Bihar, the Sugar Syndicate went into voluntary liquidation.

#### **GANGA NATH COMMITTEE FINDINGS—1949 SUGAR CRISIS BLAMED ON SYNDICATE**

The main causes of the sugar crisis of 1949 were the uncontrolled and accelerated releases from the factories by the Syndicate and the decision taken towards the end of June 1949 to facilitate the export of a substantial quantity of sugar, according to the findings of the Sugar Inquiry Committee.

The Committee's report says that both these factors had a marked bullish effect on the sugar markets. The situation was fully exploited by the industry and the trade to their advantage. Regarding the causes, the Tariff Board also held the same view.

Unless releases from factories are regulated and properly controlled, or, alternatively, sufficient stocks are at the disposal of the State, there will inevitably be a tendency towards hoarding and profiteering in a commodity like sugar in the late part of the season.

The Sugar Inquiry Committee, with Mr. Ganga Nath as the sole member, was appointed by the Government of India by a resolution dated June 12, 1950, to inquire into such aspects of the sugar crisis of 1949 as were not fully covered by the Tariff Board.

### SUPPLY OF WAGONS

The report referred to the Indian Sugar Syndicate's complaint in February, 1949, regarding the supply of wagons for sugar movement and said that a plan for the supply of wagons to sugar factories on the basis of the statistics supplied by the Syndicate was finalised on April 14, 1949. The plan provided for a normal carry-over of 100,000 tons of sugar at the end of the sugar year.

Although, adequate provision was made in the plan for supply of wagons, the Syndicate indented for a much larger number than planned for, and the number of wagons supplied during the period from March 15, 1949 to August 31, 1949 was 32 per cent, in excess of the plan. This resulted in the despatch from the factories of an extra quantity of sugar amounting to 1,30,001 tons.

Besides, the plan considered ten tons as the capacity of each wagon whereas on the E. I. R. and E. P. R. it was 20 tons. This resulted in double the number of wagons being provided on these railways.

Basic release quotas for individual mills were to be fixed by the Syndicate subject to the approval of the Sugar Commission. But, during the year 1948-49 the Syndicate made releases amounting to 80 per cent. of the year's production till June 28, 1949.

The report added, "The Indian Sugar Syndicate and the Sugar Commission had the statutory authority to regulate supply and distribution. There was also the supervising authority of the Governments of U. P. and Bihar. Obviously, in such an arrangement the direct responsibility lies only with the Indian Sugar Syndicate and the Sugar Commission."

### COMPLAINT BASELESS

The report described the Sugar Syndicate's complaint in February, 1949 of inadequate supply of wagons as "baseless." The quantity of sugar moved in February and the first fortnight of March, 1949 was much larger than that in the corresponding period of 1948 and no intervention by the Central or State Governments was called for. "Since a plan was made, it should have been kept under review and the wagon supply regulated accordingly."

Movement of sugar, intended for consumption in India, into Pakistan during 1949 was also a factor causing the sugar crisis. Sugar despatched to important border towns in 1948-49 totaled 1,15,945 tons as against 54,682 tons in the previous year. "Since," the report said, "consumption in these border towns could not have increased to the extent shown by the additional quantities sent to them in 1948-49, the extra quantity of sugar must have gone to Pakistan."

The Syndicate fixed the prices but there was nothing in its Constitution to prevent the factories from charging higher prices. Hence the Syndicate had taken no action against them. Nor could Government do anything as there was no statutory control on sugar prices at that



time. Government control had to be reimposed as a sequel to the scarcity of sugar created by the factories and the trade and the high prices charged by them to the consumer.

## GOVERNMENT RESOLUTION ON SUGAR CRISIS REPORT

No. SV-101 (4-18)/50, dated the 14th July, 1951

The report of the Sugar Enquiry Committee appointed by the Government of India under their Resolution No. SV-101(4-15)/50, dated the 12th June, 1950 to enquire into such aspects of the sugar crisis of 1949 as were not fully covered by the Tariff Board, is hereby released for general information. The findings of the Committee on the specific items referred to it for enquiry together with Government of India's comments thereon are stated below :—

(1) *Excessive Supply of Wagons*—In February, 1949 the Indian Sugar Syndicate complained to the U. P. and Central Government regarding the supply of wagons for movement of sugar. The Hon'ble Chief Minister U. P. also addressed the Hon'ble Minister for Food and Agriculture, emphasising the need for increased transport facilities for sugar. The Ministry of Agriculture moved the Ministry of Transport to step up wagon supply, and the latter Ministry convened in this connection a meeting at Gorakhpur on the 19th March, 1949, which was attended by the representatives of the U. P. Government and the Indian Sugar Syndicate. A plan for the supply of wagons to sugar factories on the basis of the statistics supplied by the Sugar Syndicate was prepared at this meeting and it was finalised at another meeting held on the 14th April, 1949. The plan provided for a normal carry-over of one lakh tons of sugar at the end of the sugar year. Although adequate provision was made in the plan for supply of wagons, the Syndicate indented for a much larger number than planned for, and the number of wagons supplied during the period from 15th March, 1949 to 31st August, 1949, was 32 per cent in excess of the plan. This resulted, according to the Committee, in the despatch from the factories of an extra quantity of sugar amounting to 1,30,000 tons. The Committee has further stated that another reason for excessive despatches of sugar was that in the plan drawn up the capacity of each wagon was taken as ten tons, regardless of the fact that on the EIR and EPR it is 20 tons which has resulted in double the number of wagons being provided on these Railways against what should have been provided.

The Committee has also stated that basic release quotas for individual mills were to be fixed by the Syndicate subject to the approval of the Sugar Commission, but during the year 1948-49 the Syndicate made releases amounting to 80 per cent of the year's production till the 28th June, 1949 without the Sugar Commission's sanction. If excessive releases had not been made, the question of excessive movement would not have arisen.

Concluding its finding on the subject the Committee has stated as follows:—

'It seems clear, that in the case of the Central Govt. there was no statutory duty (to regulate quota releases and movement) but it is obvious that if an intercession is made on the representation of an interested party, there is an obligation to make sure that such representation is well-founded and that remedy devised has relation to actual facts and past experience. Apart from this, there is the general obligation to be vigilant

of the public interests. The Indian Sugar Syndicate and the Sugar Commission had the statutory authority to regulate supply and distribution..... There was also the supervising authority of the Government of U. P. and Bihar. Obviously, in such an arrangement the direct responsibility lies only with the Indian Sugar Syndicate and the Sugar Commission; the role which other parties mentioned above have played is only indirect.'

The Committee is of the view that the complaint made by the Sugar Syndicate in February, 1949 regarding inadequate supply of wagons was baseless since the quantity of sugar moved in February and the first fortnight of March, 1949 was much larger than in the corresponding period of 1948 and no intercession by the Central or State Governments was called for. The Committee is also of the view that since a plan was made, it should have been kept under review and the wagon supply regulated accordingly.

It may be noted that information about despatches in February was not available and despatches in March were yet to take place when the complaint by the Sugar Syndicate was received; on the other hand, despatches according to figures supplied by the Indian Sugar Syndicate of sugar in January, 1949 were only 53,550 tons as against 81,573 tons in January, 1948. The supply of wagons during the last three months of 1948 was also, very inadequate. The experience of the past several years had been that the supply of wagons on the O. T. Railway on which the bulk of the factories in U. P and Bihar are situated, were chronically short. The Factories had a large carry-over of two lakh tons from the previous year and the new season's production was fast accumulating. The factories were reported to be in financial difficulties by the U. P. Government. Due to lack of adequate transport prices of sugar in the industrial centres were rising. In view of all these facts it did not appear to Government that the anxiety shown by the Sugar Syndicate and the State Government of U. P. was without justification. Increased wagon supply, was therefore, considered necessary at a time when crushing was at its peak. The wagon supply was, therefore, stepped up. It is true that the wagon supply position had improved in February and March, 1949 but there was no guarantee that the improvement would be maintained. In order that similar difficulties may not recur a plan for movement of sugar leaving a normal carry-over of one lakh tons at the end of the year with the Industry, was drawn up. There was no miscalculation in the plan as stated by the Committee regarding the carrying capacity of a wagon on the different Railways. The calculations were correctly made on the appropriate wagon capacity for each Railway and not on a uniform rate of ten tons per wagon.

The object underlying the plan was not to regulate movement statutorily but to provide a minimum guarantee of supply of wagons to the factories as is clear from the fact that it was mentioned in the plan that there was no objection to supply more wagons. The plan was, therefore, meant to serve as guide to the Railways and the Industry. It could have no further significance under conditions of decontrol.

The operation of the plan was being observed but, as it happened, many more wagons became available and the plan was exceeded. No one at that time could, however, anticipate that the transport position would ease considerably. Under decontrol when there was a free

market the Railways could not refuse to give more wagons when they became available and if demanded, as the plan had no statutory basis and the Railways are public carriers.

Under decontrolled conditions the responsibility for planned movement of sugar lay on the Indian Sugar Syndicate which was the marketing organisation of the factories in Uttar Pradesh and Bihar, and not on the Central or State Governments who had deliberately adopted a policy of decontrol, the necessary implication of which was not to impose any restrictions on movement or distribution.

(2) *Movement of Sugar Intended for Consumption in India into Pakistan during 1949*—There was no ban on export of sugar from India to Pakistan from 16th June, 1948 to 2nd September, 1949. But Pakistan had levied an import duty of £ 30/- per ton before 1st March, 1949. The ex-factory price of sugar in India in 1947-48 was Rs. 35/7/- per maund. As the cost of Indian sugar after paying the import duty would have been excessive, the Committee thought that it would have paid the traders on both sides of the Indo-Pakistan border to move sugar only by manipulating evasion of import duty.

In 1949, the price of Indian sugar was reduced to Rs. 28/8/- per maund while the import duty in Pakistan was also abolished from 1st March, 1949. Between 1st March, 1949 and 1st September, 1949, therefore, sugar could have moved from India to Pakistan without let or hindrance. According to the figures supplied by the Director-General of Commercial intelligence and Statistics only 6,606 tons of sugar was exported from India to Pakistan from November, 1948 to October, 1949. Both the Industry and the Trade, however, alleged that about 50,000 tons of sugar was exported to Pakistan during the said period. The trade estimate was based mainly on the fact that much larger quantities of sugar were despatched to border State like West Bengal, East Punjab and Assam and to towns situated on the Indo-Pakistan border during 1948-49 than during 1947-48. Quantities of sugar despatched to Saurashtra were also much larger in 1948-49. Sugar despatched to important border towns in 1948-49 totalled 1,15,945 tons as against 54,682 tons in the previous year. Since consumption in these border towns could not have increased to the extent shown by the additional quantities sent to them in 1948-49, the Committee feels that the extra quantity of sugar must have gone to Pakistan. Under decontrol, however, large border movements could not be prevented. There are also physical limitations in effectively sealing a border which is hundreds of miles in length. The Govt. of India have taken suitable precautions in the current year to avert clandestine removal of sugar out of the country by keeping a close watch on the inter-state movement of sugar and by allowing it only under permits to be issued by the Central Govt.

(3) *Alleged Despatch of Sugar by Sugar Factories in Breach of the Freezing orders of the Uttar Pradesh and Central Governments*—The total quantity of sugar frozen by the Uttar Pradesh Government was 80,836.9 tons. The Committee has found that there were no despatches by factories in breach of the Uttar Pradesh Government's freezing order.

The quantity of sugar frozen by the Central Government was 1,13,677.5 tons. Out of 125 sugar factories whose stocks were frozen by the Central Government, 3 factories have been found by the Committee to have despatched about 150 tons of sugar in breach of the Govern-

ment orders. The Government of India are examining the cases of these factories with a view to taking suitable action in the matter.

(4) *Premium Charged by Sugar Factories over their Fixed Price during July-August, 1949.*—The Indian Sugar Syndicate informed the Committee that 13 factories from among their members had charged a premium over their fixed prices. Replies received by the Committee from factories direct, however, showed that certain other factories had also charged premia. The premium charged by different factories varied widely and was as high as Rs. 10-12-4 per maund in some cases. The information supplied to the Committee by merchants showed that a much larger number of factories had charged such premium, and their number in U. P. and Bihar alone would be more than 75.

As the prices for the factories were fixed by the Syndicate and as there was nothing in the Syndicate's Constitution to prevent the factories from charging higher prices, no action was taken by the Syndicate against such factories. Nor could Government do anything in the matter as there was no statutory control on sugar prices at that time. Government control had to be reimposed as a sequel to the scarcity of sugar created by the factories and the trade and the high prices charged by them to the consumer.

(5) *Proposal for Export of 50,000 tons of Sugar to Pakistan.*—The Indian Sugar Syndicate thought of exporting sugar to Pakistan as early as January, 1949 at even 'cut' prices. A surcharge of Rs. 4 per maund was levied by the Syndicate on all sugar released by the Syndicate for home consumption with a view to making good the loss on such exports. The Syndicate could not, however, find any foreign buyer up to mid-June, 1949. Government was approached about that time to help the Industry in its efforts to export sugar to Pakistan.

At this juncture a representative of the Government of India, who had gone to London in connection with talks on Sterling Balances, telegraphed to the Government of India that Pakistan representatives had requested U. K. for dollar allocation for purchase of sugar and that U. K. Government had suggested that India should export sugar to Pakistan. The matter was placed before the Economic Committee of the Cabinet, and it was decided to offer *inter alia* 30,000 tons of sugar to Pakistan through U. K. and to help the Industry to export it by price manipulation, if necessary. The news of this Government's decision had a bullish effect on the market and gave rise to a feeling of scarcity. Internal prices rose and the Syndicate, therefore, gave up the idea of exporting any sugar.

The Committee has questioned the propriety of the above Government's decision taken at a time when the stocks with the factories were much below the normal level and the position of the projected carry-over at the end of the year was in jeopardy. As regards the Industry, the Committee has stated that since substantial stocks had left the factories by June-July, 1949, the Industry could not have been interested in exports unless some stocks had been deliberately kept back for the purpose, and the attendant scarcity had something to do with it. The Committee has concluded that "one or the other conclusion is inescapable that very substantial quantities of sugar were concealed with a view to exporting to Pakistan, and subsequently remained under-

ground, or that artificial scarcity was created with a view to pushing up prices. It is difficult to say which motive actually rules the men that mattered." Nor is the Government in a position to throw any more light on the subject.

(6) *Movement of Sugar by Factories and Trade During July-August, 1949*—The statistical data collected by the Committee clearly shows that there was considerable movement of sugar from factories and distributing centres in all directions. The sugar purchased by merchants from factories at premium prices was passed on to merchants in consuming centres at increased prices. Since, however, there was no control on sugar prices or movement during those months, the Government of India or any of the State Governments could not take any action in the matter.

2. The main causes of the sugar crisis of 1949 in the opinion of the Committee as also of the Tariff Board were the uncontrolled and accelerated releases from the factories by the Indian Sugar Syndicate and the decision taken towards the end of June, 1949 to facilitate the export of a substantial quantity of sugar. Both these factors had a marked bullish effect on the sugar markets. The situation was fully exploited by the Industry and the trade to their advantage. Consequently, a feeling of scarcity was created in the later half of 1949 leading to high prices of sugar. The conclusion to be drawn is that unless releases from factories are regulated and properly controlled, or, alternatively sufficient stocks are at the disposal of the State, there will inevitably be a tendency towards hoarding and profiteering in a commodity like sugar in the later part of the season.

### **CENTRE TO TAKE ACTION AGAINST FACTORIES**

Mr. K. M. Munshi said in Parliament that the Government of India had under examination, at present, the question of taking action against those sugar factories which had despatched 150,000 tons of sugar in 1949 without Government's permission.

The Sugar Inquiry Committee's findings, he said, had been examined, and decisions taken on some of its recommendations. There was no doubt that a considerable amount of sugar went underground in 1949, leading to a crisis.

### **IMPORTS OF SUGAR IN 1949-50**

The Government of India in order to make up the deficit of about a lakh of tons in the sugar production in the country in 1949-50 purchased 60,050 tons of the U. K. and U. S. A. sugar for importing into the country. Out of the total quantity purchased only 5,550 tons were reported to have reached India in 1949-50 before November, 1950. The balance was imported into the country in 1951. Out of the total quantity purchased 28,000 tons were reported to have reached before February, 1951. It was announced by the Deputy Minister for Food in February, 1951 that the Government of India had no intention of importing more sugar in 1951, except the balance of 32,050 tons.

### **ESTIMATED COST OF 60,050 TONS PURCHASED WORKS OUT TO RS. 6.15 CRORES**

The Government of India purchased sugar at varying rates and in different quantities from the U. K. and U. S. A. From the U. K. they purchased 60,000 tons, at £ 56 to £ 62 per

ton and from U. S. A. 50 tons at \$6.5 per 100 lbs. It was subsequently announced by the Food Minister in the Parliament that the imports of 60,000 tons of Sugar had cost Rs. 6.15 crores. There had been no loss in the transaction.

### IMPORTS OF SUGAR PROVED COSTLY

With effect from 24th June, 1950, Government prohibited the export of sugar, gur (cane and palmyra jaggery) to conserve our supplies. The Government of India negotiated with foreign countries for purchase of sugar through embassies, and enquiries were made for getting stocks at once. The Indonesian authorities had already observed in March, 1950 that there would be no possibility of getting sugar from Java. By July 2nd, 1950, however, Mr. D. Y. Dev, the then Commissioner for India in Mauritius reported the possibility of imports from Mauritius, as it was expecting to have a record crop of 4.5 lakh tons. This possibility, however, did not materialise as the entire surplus production of sugar in Mauritius was committed to be sold to the U. K. Ministry of Food. In November, 1950, the Hon'ble Minister for Food and Agriculture, Mr. K.M. Munshi, in reply to a question in Parliament reported that as against 60,050 tons of sugar purchased by the Government of India from the U. K. (60,000) and from the U. S. A. (50 tons), 5,550 tons of the estimated value of about Rs. 40 lakhs had arrived in 1950 and by February 12, 1951, the total unshipped quantity was only 40,000 tons.

During the discussion in Parliament (Indian) in October, 1950, it was stated that sugar was available before the outbreak of Korean hostilities at a price of Rs. 652 per metric tons f.o.b., Bombay, a price much lower than one paid to the U. K. and therefore, it was alleged that India had suffered a loss of about Rs. 1.33 crores, according to Mr. Mahabir Tyagi (U. P.) mostly by delaying its imports.

It is true that before the Korean war broke out, sugar was offered by some countries in varying quantities at rates which were only slightly higher than the price at which Indian sugar was sold in the country, and the Government would have had to either forego the import duty or to suffer a little loss in selling the foreign sugar in the internal market, as foreign sugar could not be sold at a higher price than that of Indian sugar, the commodity being controlled. But due to the outbreak of war, there was a sudden spurt in price, and the Govt. had to pay higher prices than were envisaged when the proposal to purchase sugar was first mooted a few months earlier.

### ENQUIRY-INTO SUGAR IMPORT OF 1950

#### GANGA NATH COMMITTEE'S FINDINGS

The Government of India's sugar import policy has been vindicated by the Sugar Import Enquiry Committee (S. I. E. C.) in the report submitted by it to the Government of India re-

cently. Presided over by Mr. Ganga Nath, a retired judge of the Allahabad High Court, who, it will be remembered, also conducted an enquiry into some aspects of the sugar crisis of July-August, 1949, the S. I. E. C. was appointed by the Government of India some time towards the end of 1950, to enquire into, and report on, the allegations about the non-acceptance, by the Government, of certain offers of private parties to import sugar and other connected matters. The appointment of the Committee, was a sequel to the Prime Minister's assurance on 16th November, 1950, in the Union Parliament, following the bitter attack on the Food Ministry made by Mr. Mahabir Tyagi, now Minister of State for Finance, and certain other members.

When the Food Minister announced, as late as in July, 1950—according to the Ganga Nath Committee, the Cabinet decided to import sugar in June, 1950—its decision to import, on its own account, one lakh tons of sugar with a view to meeting the sugar scarcity in the country, it evoked considerable criticism, not merely from trade circles all over the country but also by a large section of influential public opinion, both in and outside Parliament. Voicing the opinion of the business community, several sugar merchants' associations in the country bitterly criticised the Government's decision at that time to purchase forward sugar, and not ready sugar, which it was that was actually required to meet the scarcity. More than anybody else, it was Mr. Mahabir Tyagi who was particularly caustic on that much criticised aspect of the sugar import policy, namely, that, whereas the Food Ministry had previously turned down an offer from a private party to supply foreign sugar—from Cuba and Formosa, at Rs. 579 per metric ton f.o.b. Bombay—subsequently, the Government itself bought sugar from abroad, which, according to him, had cost the Exchequer nearly Rs. 1.33 crores more. This charge was refuted by the Union Food Minister. The offer, when it was made in April or May, Mr. Munshi maintained, was not of a tempting character and also did not emanate from a reliable source. He further stated that, when the offer was rejected, there was no question of any loss, because "nobody ever thought that North Korea would attack South Korea and that sugar prices would go up."

Justifying the Minister's action in regard to sugar imports as above, the Ganga Nath Committee has lent support to all the contentions of the Food Minister. Strangely enough, it even endorses his view that the increase resulting from the Korean war could not have been anticipated and so no responsibility could be attached to any officer of the Government. All the sugar which the Government had purchased—60,050 tons—the Committee adds, was by negotiation with the U. K. and the U. S. Governments, through the High Commissioner in London and the Indian Embassy in Washington and, as such, no agency was employed by the Government for these purchases. Proceeding, it observes that the trend of world prices during April-May, 1950 was downwards and, as sugar offers then received were from dollar countries, or from Formosa, or at prices higher than the then prevailing price of India sugar, such could not be considered.

We cannot say how far all these observations will carry conviction. For certain parties in Bombay are known to have made offers to the Government for purchase of sugar from the British Ministry of Food—not from Cuba or Formosa or from the dollar area—at round about £ 45 per ton. Although the Food Ministry was inclined to accept this offer, it wrote back to the party in question saying that the Government had not yet decided on the policy of imports

ing sugar. It is not clear how these aspects of the matter could have escaped the attention of the Ganga Nath Committee. The Committee has just stated that no offers were invited from anybody prior to April, 1950.

Be that as it may, in regard to the actual time of imports, the Committee avers that the question of import of sugar became of "practical importance" only towards the end of April, 1950, when the position of home production was, more or less, accurately known. It was only then that it became clear, it has stated, that the production of the season would be unequal to the demand, and that, since the stocks of sugar produced in India were expected to last up to the end of November, 1950, there was no necessity for arranging imports. This explanation of the Committee is not at all convincing. We would recall here what the Food Minister himself stated in Parliament on 2nd August, 1950, that, for the moment the Government had no intention of giving the imported sugar to merchants or to use it for any other purpose, except as a reserve. If such was the intention of the Government, we fail to understand why it could not have postponed placing orders to some time later, that is to say, till the early part of the sugar season 1950-51, instead of doing so at the fag end of the season (1949-50), when prices would invariably be higher.\*

### ] "LARGE AMOUNT OF SUGAR SMUGGLED INTO PAKISTAN"

*Military posted to check clandestine trade*—Large consignments of sugar were reported to have been smuggled into Pakistan through some trading agencies in Saurashtra in recent months, and the Government of India has drafted special military police to check this clandestine trade on the border. The drop in sugar market prices is due to a fall in demand of sugar from Saurashtra owing to this check.

Even some of the high placed officers of the Government of India wondered as to how the demand of sugar was alarmingly increasing in Saurashtra where the consumption even during the normal days was not above average. It was suspected that some of the trading agencies on the border were passing sugar without any authority to Pakistan and that business has received a great set back owing to the vigil kept by the Military Police.

Table No. 87  
*Foreign Imports of Confectionery into India*

Year							Quantity Cwt.	Value in Rs.
1935-36	...	...	...	...	...	...	33,690	21,53,670
1936-37	...	...	...	...	...	...	37,133	22,89,858
1937-38	...	...	...	...	...	...	27,741	18,79,891
1938-39	...	...	...	...	...	...	23,772	16,70,739
1939-40	...	...	...	...	...	...	22,144	13,76,797
1940-41	...	...	...	...	...	...	12,568	10,41,618
1941-42	...	...	...	...	...	...	7,637	8,47,784
1942-43	...	...	...	...	...	...	2,433	2,65,010
1943-44	...	...	...	...	...	...	194	34,734
1944-45	...	...	...	...	...	...	1,015	1,40,597
1945-46	...	...	...	...	...	...	2,805	2,93,828

(\*) Vide Commerce, Bombay dated 7 April, 1951.



### TOTAL DEMAND OF CONFECTIONERY IN INDIA WORKS OUT TO 3% OF TOTAL SUGAR PRODUCTION

Assuming the total average annual production in the country to be about 10 lakh tons of sugar, the total demand of the confectionery for 30,000 tons works out to only 3 per cent of the total production in the country. The possibility of export of Indian confectionery is not very great owing to high prices of sugar in the country. But its requirements should be met more generously.

### SALES TAX ON SUGAR IN U. P. AND BIHAR

With effect from the 1st of April, 1949, a Sales tax at the rate of Re. 0-0-2 per rupee is levied in the U. P. It is a single point tax payable by mills in U. P. and exporters thereof. No rebate as in the past is allowed in respect of exports of sugar outside the province. Till this date, a rebate of half of the tax was permitted on quantities exported outside the State. In Bihar, however, sales tax was levied in the 1949-50 season at the rate of Re. 0-0-3 per rupee. On the basis of 508,700 tons production in 1949-50 in the U. P., of the value of about Rs. 40,536 crores at the rate of Rs. 28-8-0 per maund (or Rs. 800 per ton approximately) the sales tax in the U. P. at the above rate works out to Rs. 42,22,500 and in Bihar on the basis of production 222,600 tons of the estimated value of Rs. 17.80 crores, the sales tax at the rate of 3 pies per rupee works out to an approximate figure of Rs. 27,80,937.

### TRADE STATISTICS

Table No. 88

*Imports, Exports and Re-exports of Sugar*

Year	Imports		Exports		Re-exports	
	Quantity Tons	Value Rs.	Quantity Tons	Value Rs.	Quantity Tons	Value Rs.
1931-32 ...	5,16,100	6,01,00,000	226	53,512	5,627	10,26,714
1932-33 ...	3,69,500	4,12,00,000	437	70,147	4,043	5,02,527
1933-34 ...	2,61,300	2,70,00,000	425	64,451	11,526	7,35,602
1934-35 ...	2,22,900	2,11,00,000	363	63,086	2,604	6,09,814
1935-36 ...	2,01,200	1,91,00,000	389	61,296	2,972	5,29,773
1936-37 ...	23,100	24,00,000	521	76,886	9,096	14,58,876
1937-38 ...	13,715	17,62,000	14,296	26,30,847	1,686	3,92,782
1938-39 ...	32,715	40,92,000	6,628	15,19,164	49	9,938
1939-40 ...	2,51,707	3,25,34,000	415	1,36,336	24,148	55,45,502
1940-41 ...	18,778	34,68,406	6,934	18,68,039	5,075	16,19,520
1941-42 ...	48,637	1,06,69,234	6,191	14,63,434	27,304	70,93,629
1942-43 ...	563	1,86,759	20,019	79,10,477	29,193	1,06,65,583
1943-44 ...	21	12,900	7,846	36,51,870	195	1,29,108
1944-45 ...	...	1,864	6,590	31,52,773	...	...
1945-46 ...	35	37,723	3,617	18,65,065	313	2,12,373
1946-47 ...	...	...	1,816	9,98,887	280	2,12,770
1947-48 ...	18	29,458	4,961	37,10,893	...	...
1948-49 ...	10,039	65,72,242	3,742	38,76,315	...	...
1949-50 ...	23	22,523	4,585	28,94,821	...	...
1950-51 ...	58,848	...	2,506	19,93,306	...	...

N.B.—During the years 1950-51 and 1951-52 a quantity of 60,050 tons of sugar was imported in India. Out of this quantity 50 tons of sugar was imported from U. S. A. and 60,000 tons from U. K. The total price paid for the above quantity was about Rs. 52,124,852-12-11

Table No. 88(a)

*Monthly Import of Sugar*

Month							Quantity Tons
November, 1950	...	...	...	...	...	...	7,540
December, 1950	...	...	...	...	...	...	11,648
January, 1951	...	...	...	...	...	...	11,000
February, 1951	...	...	...	...	...	...	12,372
March, 1951	...	...	...	...	...	...	16,288
April, 1951	...	...	...	...	...	...	1,202
Total							60,050

**EXPORTS OF SUGAR BY LAND DURING 1949-50 AND 1950-51**

During the official year 1949-50, 4,555 tons of sugar were exported by land to the countries shown in table No. 89. In the year 1948-49, 1,05,37 tons of refined sugar was exported by land. During 1950-51, 23,318 tons of refined sugar was exported by land.

Table No. 89

*Export of Refined Sugar by Land During the Official Year 1949-50*

Exported to							Quantity Tons	Value Rs.
Pakistan, Eastern	...	...	...	...	...	...	3,360	28,47,757
Pakistan, Western	...	...	...	...	...	...	184	20,563
Tibet, Nepal, Sikkim and Bhutan	...	...	...	...	...	...	1,011*	n.a.
Total							4,555	28,68,320†

\* Export during 1950-51 amounted to 23,318 tons.

† Excludes value in respect of 1,011 tons.

Table No. 90

*Monthly Despatches and Closing Stocks of Sugar*

Months							Despatches (1,000 tons)	Closing Stock (1,000 tons)
July, 1949	...	...	...	...	...	...	99	236
August, 1949	...	...	...	...	...	...	111	126
September, 1949	...	...	...	...	...	...	25	98
October, 1949	...	...	...	...	...	...	58	45
November, 1949	...	...	...	...	...	...	32	31
December, 1949	...	...	...	...	...	...	47	159
January 1950	...	...	...	...	...	...	87	344
February, 1950	...	...	...	...	...	...	86	521
March, 1950	...	...	...	...	...	...	117	576
April, 1950	...	...	...	...	...	...	81	558
May, 1950	...	...	...	...	...	...	103	455
June, 1950	...	...	...	...	...	...	80	380
July, 1950	...	...	...	...	...	...	71	310
August, 1950	...	...	...	...	...	...	89	223
September, 1950	...	...	...	...	...	...	63	159
October, 1950	...	...	...	...	...	...	75	86
November, 1950	...	...	...	...	...	...	50	85
December, 1950	...	...	...	...	...	...	68	239
January, 1951	...	...	...	...	...	...	82	438
February, 1951	...	...	...	...	...	...	87	619
March, 1951	...	...	...	...	...	...	115	697
April, 1951	...	...	...	...	...	...	93	665
May, 1951	...	...	...	...	...	...	72	604
June, 1951	...	...	...	...	...	...	88	519
July, 1951	...	...	...	...	...	...	92	435
August, 1951	...	...	...	...	...	...	82	354
September, 1951	...	...	...	...	...	...	100	254

Table No. 91

*Total Value of Sugar Machinery imported into India*

Official Year				Value Rs.	Official Year				Value Rs.
1941-42	...	...	...	20,41,642	1946-47	...	...	...	55,44,094
1942-43	...	...	...	7,73,103	1947-48	...	...	...	95,97,938
1943-44	...	...	...	8,20,380	1948-49	...	...	...	1,51,78,595
1944-45	...	...	...	11,07,144	1949-50	...	...	...	1,74,24,807
1945-46	...	...	...	30,43,109	1950-51	...	...	...	99,93,129

Table No. 92

*Inter-State Imports and Exports of Sugar in India for 1947-48 to 1949-50 (Official year)*

States	Exports			Imports		
	1949-50 Tons	1948-49 Tons	1947-48 Tons	1949-50 Tons	1948-49 Tons	1947-48 Tons
Assam ...	66	133	33	21,790	22,910	5,359
West Bengal ...	15,353	14,291	5,132	1,12,468	1,34,741	50,730
Bihar ...	1,41,507	1,04,126	51,116	4,294	9,917	2,600
Orissa ...	793	2,843	66	3,517	3,447	2,179
Uttar Pradesh ...	4,38,036	4,76,900	2,46,290	9,920	3,111	5,166
Punjab ...	5,577	14,418	4,512	1,00,825	1,14,102	47,560
Delhi ...	627	1,390	394	22,098	26,945	4,059
Madhya Pradesh ...	2,044	540	249	35,328	35,599	23,620
Bombay ...	24,736	39,159	38,616	1,90,811	2,20,916	1,24,152
Madras ...	23,914	31,424	23,993	78,592	62,199	41,422
Rajasthan ...	811	567	82	46,672	50,787	33,328
Madhya Bharat ...	1,362	4,618	3,201	20,324	13,874	10,813
Hyderabad ...	58	23	39	6,158	2,724	2,176
Mysore ...	549	10,968	335	2,637	128	2,124
Kashmir ...	Negligible	...	...	...	...	945

Table No. 93

*Import and Export of Molasses (Including Palmyra and Cane Jaggery) During 1947-48 to 1950-51 (Nov.-Oct.)*

Year	Import Tons	Export Tons
1947-48 ...	537	12,758
1948-49 ...	...	15,108
1949-50 ...	1,465	2,332
1950-51 ...	...	2,506

## **Chapter XV**

### **CONSUMPTION OF SUGAR**

#### **DEMAND FOR SUGAR—PLANNING COMMISSION'S ESTIMATE**

The per capita consumption of sugar in the pre-war period was 6.6 lbs. During 1941-42 it was 7.0 lbs.; and during 1948-49 it has been estimated as 8.96 lbs. [For the Indian Union, the last figure has been calculated on the basis of the estimated population of India in 1948-49 and a consumption of 12 lakh tons during the whole year. This figure of 12 lakh tons has to be viewed in the light of (1) a reduction in the price of sugar by Rs. 6/15/- per maund during 1948-49, and (2) better transport facilities for the movement of sugar.

The confectionery industry is an important consumer of sugar. In recent years several sugar producers have equipped themselves for manufacturing confectionery products. The annual requirements of sugar for confectionery manufacture are estimated at 21,000 tons on the basis of 0.75 tons of sugar per ton of confectionery produced. As a side-line of the sugar industry, this industry helps to increase the profits of the sugar manufacturers and to keep a portion of the seasonal labour force employed in the off-period. Sugar should be released to the confectionery industry to meet full requirements because it would enable idle equipment to be fully employed.

The demand for sugar from the fruit preservation industry which has been protected should also be met in full.

The three important factors governing the demand for sugar are the price of sugar, increased industrial consumption of sugar, and transport. Taking these factors into account, and allowing for no export demand in view of the present level of prices of Indian sugar, the demand for 1949-50 and for the current year and the next year may be put at 12 to 12.5 lakh tons of sugar.

#### **OBSERVATIONS OF TARIFF BOARD (1950) ON DEMAND FOR WHITE SUGAR**

The consumption of sugar during 1948-49 is estimated at 12 lakh tons, while the demand during the next two or three years is estimated at 13 lakh tons per annum. The future estimate is based on the expectation that the price of sugar will be steadily reduced, that there will be increased industrial consumption and that there will be no difficulty regarding transport of sugar to the consuming centres. So long as, however, there is control over sugar, the consumption will have to be limited to the quantity available from indigenous production and imports, if any.

It should be possible for the sugar industry to attain a production of 12 lakh tons per annum in the next two or three years, provided steps are taken to improve the cane supply to mills. Even if this level of production is reached, it will not be adequate to meet the present demand of 13 lakh tons per annum in the country. With the improvement of economic conditions, the domestic demand is likely to increase further in the next four or five years. There is, therefore, scope for increasing the productive capacity of the industry either by expansion of the existing units or installation of a few new units.

### CONSUMPTION STATISTICS

Table No. 94

*Allotment of Sugar from Frozen Stocks of 1949*

Statement showing allocations made to various Provinces/States/Administration out of Frozen stocks of U. P. & Bihar Factories

Provinces/States/Administrations	Total allotment out of frozen stocks of U. P. & Bihar factories	Allotment from stocks frozen with mills within Provinces	Provinces/States/Administrations	Total allotment out of frozen stocks of U. P. & Bihar factories	Allotment from stocks frozen with mills within Provinces
( All figures in tons )					
1. Assam ...	2,000	...	17. Travancore & Cochin ...	...	675
2. West Bengal ...	8,500	212	18. Hyderabad ...	...	3,080
3. Bihar ...	10,000	...	19. Mysore ...	...	3,595
4. United Provinces	20,000	...	20. Bombay ...	16,000	1,612
5. Delhi ...	4,165	...	21. Saurashtra ...	5,000	...
6. East Punjab ...	10,027	...	22. Cutch ...	500	...
7. PEPSU ...	1,000	63	23. Ajmer-Merwara ...	800	...
8. Kashmir ...	1,450	...	24. Coorg ...	...	50
9. Himachal Pradesh & Bilaspur ...	500	...	25. Andamans ...	90	...
10. Rajasthan ...	6,015	...	26. Rampur ...	500	...
11. Madhya Bharat ...	4,000	342	27. Cooch Bihar ...	200	...
12. C. P. & Berar ...	3,500	...	28. Tripura ...	20	...
13. Vindhya Pradesh ...	500	...	29. Panth Piploda ...	10	...
14. Orissa ...	1,200	28	30. Chandarnagore ...	90	...
15. Bhopal ...	400	85	31. Sikkim ...	40	...
16. Madras ...	7,200	4,300			
Total ...				1,03,707	14,042

Table No. 95

*Statement Showing Allotment of Sugar for Consumption from 15-12-49 to 30-11-50 and*

*1-12-50 to 30-11-1951*

(All figures in Tons)

							From 15-12-49 to 30-11-50	From 1-12-50 to 30-11-51
1.	West Bengal	...	...	...	...	...	94,835	1,02,905
2.	Assam	...	...	...	...	...	19,484	16,770
3.	Orissa	...	...	...	...	...	14,534	14,600
4.	Madras	...	...	...	...	...	84,134	82,850
5.	Travancore and Cochin	...	...	...	...	...	16,677	16,035
6.	Bihar	...	...	...	...	...	57,820	62,680
7.	Himachal Pradesh	...	...	...	...	...	2,737	2,435
8.	Bombay	...	...	...	...	...	1,91,300	1,80,750
9.	Madhya Pradesh	...	...	...	...	...	44,650	44,850
10.	Saurashtra	...	...	...	...	...	26,500	25,720
11.	Rajasthan	...	...	...	...	...	32,975	32,340
12.	Madhya Bharat	...	...	...	...	...	18,022	13,990
13.	Vindhya Pradesh	...	...	...	...	...	6,594	6,085
14.	Ajmer	...	...	...	...	...	4,372	5,935
15.	U. P.	...	...	...	...	...	1,39,390	1,33,020
16.	Delhi	...	...	...	...	...	24,574	25,760
17.	PEPSU	...	...	...	...	...	16,077	16,160
18.	East Punjab	...	...	...	...	...	67,530	76,785
19.	Kashmir	...	...	...	...	...	8,967	6,909
20.	Bhopal	...	...	...	...	...	2,854	3,085
21.	Cutch	...	...	...	...	...	2,230	3,280
22.	Bilaspur	...	...	...	...	...	340	370
23.	Sikkim	...	...	...	...	...	280	280
24.	Tripura	...	...	...	...	...	460	880
25.	Chandernagore	...	...	...	...	...	780	866
26.	Tibet	...	...	...	...	...	100	55
27.	Bhutan	...	...	...	...	...	45	...
28.	Andaman	...	...	...	...	...	300	300
29.	Nepal	...	...	...	...	...	603	1,075
30.	Mysore	...	...	...	...	...	18,263	16,670
31.	Hyderabad	...	...	...	...	...	19,645	24,481
32.	Defence	...	...	...	...	...	10,362	13,545
33.	Coorg	...	...	...	...	...	...	320
Total							9,26,434	9,37,807
1.	Confectionery including refugees, etc.	...	...	...	...	...	8,177.00	10,388
2.	Cubes	...	...	...	...	...	1,610.00	1,885
3.	Biscuits	...	...	...	...	...	2,099.00	2,791
4.	Fruit Preserver	...	...	...	...	...	2,610.08	3,023
5.	Miscellaneous	...	...	...	...	...	96.6	429
6.	Gate Sale Quota	...	...	...	...	...	13,702.42	7,374
Total							28,295.10	25,890
GRAND TOTAL							9,54,729	9,63,697

Table No. 96

*Yearly Estimate of Total Carry Over of Stocks of Sugar with Sugar Factories in India at 1st November*  
(In Tons)

Year	Quantity Tons	Year	Quantity Tons
1938 ...	67,000	1945 ...	83,167
1939 ...	28,000	1946 ...	104,050
1940 ...	388,824	1947 ...	149,200
1941 ...	352,100	1948 ...	246,170
1942 ...	91,891	1949 ...	46,515
1943 ...	134,165	1950 ...	87,892
1944 ...	265,547	1951 ...	169,506

Table No. 97

*Estimated Consumption of Sugar in India*  
(In Thousand Tons)

Year	Quantity	Year	Quantity
1938-39 ...	1,073	1944-45 ...	1,236
1939-40 ...	1,074	1945-46 ...	1,048
1940-41 ...	1,376	1946-47 ...	972
1941-42 ...	1,132	1947-48 ...	1,045
1942-43 ...	1,228	1948-49 ...	1,182
1943-44 ...	1,238	1949-50 ...	1,184
		1950-51 ...	1,195

Table No. 98

*Statewise Per Capita Consumption of Sugar in lbs.*

Name of the State	1938-39	1940-41	1941-42	1948-49
West Bengal ...	5.8	6.6	4.5	...
Bombay ...	17.0	20.8	19.2	...
Madras ...	3.4	4.8	4.1	...
Bihar & Orissa ...	2.8	3.9	3.6	...
U. P. ...	7.1	9.0	6.4	...
Punjab (I) ...	11.8	15.3	13.1	...
Madhya Pradesh ...	4.2	6.3	4.9	...
Delhi ...	44.8	53.7	34.2	...
ALL INDIA ...	6.6	8.5	7.0	8.96



Table No. 99

*Sources of Supply of Sugar for Consumption (Nov.-Oct.) During 1948-49 to 1950-51*

				1948-49	1949-50	1950-51
				Tons	Tons	Tons
Initial Stock :—						
(a) Ports	...	...	...	15,463	3,931	3,000
(b) Internal Markets	...	...	...	3,967	(4,740+150,000)	80,000
(c) With factories	...	...	...	2,46,170	46,515	87,892
Production of Sugar refined from Gur	...	...	...	3,000	400	200
Direct from cane	...	...	...	10,07,600	9,78,600	11,00,500
Khandsari	...	...	...	1,15,000	1,75,000	1,25,000
Imports	...	...	...	10,057	1	60,050
Total Supply				14,01,257	13,59,187	14,56,642
Exports of Sugar	...	...	...	14,501	4,585	1,027
Closing Stock :—						
(a) At Port	...	...	...	3,931	3,000	10,668
(b) Inland Markets	...	...	...	4,740	5,000	80,000
(c) Invisible Stock	...	...	...	1,50,000	75,000	
(d) With factories	...	...	...	46,515	87,892	1,69,506
Estimated Consumption of Sugar				11,81,570	11,83,710	11,95,441

## **Chapter XVI**

# **LABOUR IN SUGAR INDUSTRY**

## **LABOUR EMPLOYED**

On the basis of information available in respect of 137 factories, the number of workmen employed in 1947-48 came to 97,005, and their annual wage bill amounted to Rs. 3.54 crores. It has been estimated that about 130,000 unskilled workers and 3,500 technical hands are employed in all factories put together, during a normal working season.

The working conditions of factory workers in all the States in India are regulated by the Factories Acts which are applicable not only to Sugar industry but to all industries. The average number of daily workers employed in the sugar mills is about 50,000 but this average is misleading in the case of sugar industry for the number rises to about 150,000 during the crushing season. Unskilled workers who form the bulk of the working force are seasonal and so are a number of technical hands.

As pointed out by the Tariff Board, the problems of labour in the sugar industry are somewhat peculiar, due to the following reasons:—

(1) The sugar factories are mostly located in the countryside because of their dependence on sugarcane and as such the workers are generally drawn from the agricultural classes resulting in their not being affected, till recently by the trade union movement.

(2) The sugar industry is a seasonal one and the workers can therefore be employed only for the duration of the crushing season, which varies according to the supply of sugarcane.

(3) The majority of the workers have no regular or suitable employment during the off-season.

(4) The workers have no security that they would be re-employed at the commencement of the next crushing season (In Uttar Pradesh and Bihar, however, Government passed an order under the U. P. Industrial Disputes Act making it obligatory on the part of employers to employ the workers who had worked in the preceding season).

## **WAGES—A BRIEF HISTORY—1931-32 TO 1951-52**

The average wage of the worker in a sugar factory in 1931-32 was Rs. 11-4-0 per month and it decreased to Rs. 6 per month in 1937.

The actual wage position in the sugar industry from 1938 to 1946, i.e., just before the enforcement of the Sugar Factories Labour (wages) Inquiry Committee Report (The Nimbkar Committee U. P. and Bihar is summarised in Tabel No. 100.

Table No. 100

*Monthly Salary of Unskilled Workers During 1938-1947*

					W. Region	C. Region	E. Region		
Month & Year	Average								
					Rs. as. p.	Rs. as. p.	Rs. as. p.		
August, 1938	...	...	...	...	11 4 6	9 10 10	8 13 8		
January, 1939	...	...	...	...	12 12 2	10 1 1	8 10 1		
August, 1943	...	...	...	...	20 7 6	16 15 1	15 9 3		
January, 1944	...	...	...	...	23 8 4	16 13 10	17 9 2		
August, 1946	...	...	...	...	27 1 3	22 12 2	24 10 6		
January, 1947	...	...	...	...	36 15 9	33 11 9	36 9 8		

As regards the skilled workers, the wages varied for different categories of workers. In the manufacturing departments the skilled workers were paid from Rs. 40 to Rs. 55/-; juice supervisors and assistant panmen from Rs. 55/- to Rs. 75/-; panmen from Rs. 110 to Rs. 150 and moulders, blacksmiths and carpenters, engine drivers and fitters were paid from Rs. 50 to Rs. 100 to Rs. 120. On the basis of the factual data submitted by the Srivastava sub-committee, the Nimbkar Committee in its interim Report submitted in April, 1948 recommended the division of workers excluding clerks into four categories, namely: (i) Unskilled (ii) semi-skilled (iii) skilled and (iv) highly skilled.

The minimum wages for unskilled labourers were recommended to be Rs. 30 per month, for semi-skilled workers Rs. 40; for skilled workers Rs. 50; and for highly skilled workers Rs. 75. These scales were applicable to women also but children were to get a minimum of Rs. 25/- per month.

On account of continuous rise in prices, the U. P. Government with a view to implementing partially the recommendations of the Nimbkar Committee passed an order fixing the consolidated wages in 1948 at the increased rates shown in the table below:

Old Wages	Increases to be given				
Rs. 23 to Rs. 30 ... ..	...	...	...	...	An increase of Rs. 22 per month
Rs. 31 to Rs. 40 ... ..	...	...	...	...	An increase of Rs. 20 per month
Rs. 41 to Rs. 50 ... ..	...	...	...	...	An increase of Rs. 19 per month
Rs. 51 to Rs. 100 ... ..	...	...	...	...	An increase of Rs. 17 per month
Rs. 101 to Rs. 200 ... ..	...	...	...	...	An increase of 17% of pay p.m.
Rs. 201 to Rs. 300 ... ..	...	...	...	...	An increase of 12½% of pay p.m.

The minimum wage was thus raised from Rs 36/- p.m. to Rs 45/- p.m. With a further rise in prices even after the enforcement of above rates of wages, Government ordered a further increase in prevailing wages of workmen in December, 1948 in the following manner:

Wage-levels of 1945-46							Increase of
Rs. 22-8-0	...	...	...	...	...	...	Rs. 32 8 0
Rs. 23 to Rs. 30	...	...	...	...	...	...	Rs. 32 8 0
Rs. 31 to Rs. 40	...	...	...	...	...	...	Rs. 28 14 0
Rs. 41 to Rs. 50	...	...	...	...	...	...	Rs. 26 8 0
Rs. 51 to Rs. 100	...	...	...	...	...	...	Rs. 24 0 0
Rs. 101 to Rs. 200	...	...	...	...	...	...	24% of pay.
Rs. 201 to Rs. 300	...	...	...	...	...	...	18% of pay.

The above scale is in force since 1948-49 season and is applicable in 1951-52 season also. The following table gives the chronology of minimum wages since 1931-32:

Table No. 101

Year								Wages
								Rs. as. p.
1931-32	...	...	...	...	...	...	...	11 4 0
1936-37	...	...	...	...	...	...	...	6 0 0
1939-40	...	...	...	...	...	...	...	11 0 0
1945-46	...	...	...	...	...	...	...	22 8 0
1946-47	...	...	...	...	...	...	...	36 0 0
1947-48	...	...	...	...	...	...	...	45 0 0
1948-49	...	...	...	...	...	...	...	55 0 0
1949-50	...	...	...	...	...	...	...	55 0 0
1950-51	...	...	...	...	...	...	...	55 0 0
1951-52	...	...	...	...	...	...	...	55 0 0

### OVERTIME

Overtime is not generally worked in the sugar factories. The work is carried on in three shifts of eight hours each during the season. But if overtime is put in for any special reason, it is always paid for at double the ordinary rate.

### BONUS

Bonus is generally regarded as share of labour in the profits of the industry. However, all evidence on record show that the system of paying bonus to employees was not universally

followed in the sugar factories in 1932. In fact in pre-war years, inspite of large profits which the industry earned on account of state protection, only a very few factories declared bonus. A few factories here and there sometimes paid bonus purely as an ex-gratia payment, to be paid wholly out of the sweet will of the employer. Such bonus was only paid when there were substantial profits. In 1943-44 eleven out of thirty factories paid bonus varying from two months to three months pay, and as a percentage of net profits, these varied from 9 per cent to 19 percent. The Labour Investigation Committee Report on Labour condition in sugar factories (1946), which conducted inquiries in 1944-45 states that in Gorakhpur area "the award of bonus depended on profits of the firms and this privilege was extended to those workers only whose services were good and satisfactory. The amount of bonus ranged between 15 days and three months' wages of the employees." The Sugar Sub-Committee of the U. P. Labour Inquiry Committee states in its report that in 1938-39 the maximum bonus that was declared was one month's salary as for instance by Shamli and Mohinuddinpur. The figures for others are mostly not available.

Bonus is paid to workmen on the basis of total earnings during the crushing season. It is paid at a flat rate on total production, according to a graduated scale, the rate of bonus per maund of sugar produced varying with the quantity of cane crushed by each particular factory.

In February 1947, the Nimbkar Labour (Wages) Enquiry Committee, U. P. and Bihar recommended that "25 per cent of profits of a concern after exclusion of taxes, but not excluding the amount to be set apart for reserves, should be distributed as bonus among the workers, such that workers get bonus in proportion to their monthly wages." The Govt. accepted the recommendations and enforced them with immediate effect.

In January, 1948, the industry agreed to pay bonus for 1946-47 at a still enhanced rate given below, as a result of the tripartite deliberations between the representatives of employers, employees and government.

Table No. 102

*Rate of Bonus in 1946-47 in U. P. and Bihar*

Amount of cane crushed during 1946-47 season	Rate of Bonus
(a) Under 10 lakh maunds	25% of profits after payment of taxes; no bonus to be paid if no profit.
(b) 10 to 18 lakh maunds	2 annas per md. of sugar produced.
(c) Above 18 lakh mds. but below 20 lakh maunds.	3 annas per md. of sugar produced.
(d) Over 20 lakh maunds.	4 annas per md. of sugar produced.

In addition to the above Government also directed every vacuum pan factory to pay an extra bonus of Re. 1/- per md. on all stocks remaining over from the 1946-47 crushing season, after the decontrol of sugar in December, 1947:

For the crushing season 1947-48, Government issued an order in November, 1948 directing every vacuum pan factory to pay bonus to the workmen according to the following scales :

Table No. 103

*Rate of Bonus for the 1947-48 Season in U. P.*

Amount of cane crushed in a factory	Rate of bonus per md. of production of sugar during 1947-48 in 'Annas'	
	As per Nov. order	Revised in Feb. 1949
Under 10 lakh maunds ... ..	4	3
10 to 18 lakh maunds ... ..	6	5
18 to 20 lakh maunds ... ..	8	7
20 to 30 lakh maunds ... ..	10	9
Over 30 lakh maunds. ... ..	11	10

Half of the total amount of bonus was payable by November 30, 1948, which had actually been paid. But owing to the reduction in price of sugar and a large carry-over remaining with the industry Government had to revise the rates of bonus by a Notification dated February 9, 1949 which directed:

(1) Every vacuum pan sugar factory in the U. P. except those which have converted Khandsari sugar into crystal sugar during 1947-48 season and thereafter shall pay the balance of bonus to its workmen in respect shown of the 1947-48 crushing season at the rate shown in column 4 below:

Table No. 104

Amount of Cane crushed during 1947-48	Per md. of the production of sugar during 1947-48		
	Rate of bonus	Rate at which bonus already paid	Rate at which bonus is to be paid
1	2	3	4
	Rs. as. p.	Rs. as. p.	Rs. as. p.
Upto 10 lakh maunds ... ..	0 4 0	0 3 0	0 1 0
Over 10 lakh and upto 18 lakh maunds. ...	0 6 0	0 3 0	0 2 0
Over 18 lakh and upto 20 lakh maunds ...	0 8 0	0 4 0	0 3 0
Over 20 lakh and upto 35 lakh maunds ...	0 10 0	0 5 0	0 4 0
Over 35 lakh and upto 45 lakh maunds ...	0 11 0	0 5 6	0 4 6
Over 45 lakh maunds ... ..	0 11 0	0 5 6	0 5 0

(2) Those vacuum pan sugar factories which have converted Khandsari sugar into crystal sugar during 1947-48 season and thereafter shall pay the balance of bonus to its workmen in respect of the 1947-48 crushing season at the rate shown in column 3 above.

(3) The balance of bonus money payable by every such sugar factory in accordance with the above mentioned scale shall be distributed by the sugar factory among all its workmen on or before February 25, 1949."

The revivion resulted in reduction of the rates of bonus by -/1/- per md.

On the 11th January, 1950, the U. P. Government appointed a Committee of Inquiry under Shri Justice Bind Basni Prasad to determine the rate of bonus payable to workers in 1948-49 and also to make the necessary readjustments, if any, in the amount of bonus paid in respect of 1947-48.

#### **AWARD OF JUSTICE BIND BASNI PRASAD—BONUS FOR 1947-48**

(1) Of the 19 sugar factories in U. P. which converted Khandsari into crystal sugar, the following 5 were given the benefit of reduction in rates as per column 4 of the chart on pre-page. Bareilly, Bijnor, Dhampur, Jarwal Road and Masodha.

(2) The remaining 14 factories which converted Khandsari into crystal sugar were to pay the second instalment of the bonus for 1947-48 at the rate specified in column 3 of the said chart in the notification.

(3) Of the factories which did not convert Khandsari into crystal sugar in 1947, the court recommended the following principles :

- (i) Factories whose profits in 1947-48 have been three times or more of the extra bonus which would be payable by them if the reduction in rates allowed by the notification, dated April 9, 1949, is withdrawn should pay bonus at the rate specified in column no. 3 of the chart in the said notification.
- (ii) The reduction in rates allowed by the notification dated February 9, 1949 should continue in the case of the factories which have suffered loss on the year's working in 1947-48 as per their balance sheet or whose profit is less than three times the bonus payable by them, if the reduction in rates is withdrawn.
- (iii) Factories which have suffered loss on the year's working for 1947-48, but show profit in their balance sheets by drawing upon past reserves like the Dividend Equalisation Fund or by adding profit from transactions unconnected with the products of sugar and have distributed, or decided to distribute, dividends shall pay bonus at the rate specified in column no. 3 of the chart in the said notification.

#### **BONUS FOR 1948-49**

I—(a) Every factory which has shown net profits in its balance-sheet on the year's working was to pay bonus at the rate of 20 per cent of such net profits except two factories at Rampur, where the rate of bonus was to be 25 per cent. Where however, profits on the years' working had been wiped out entirely on account of past year's loss no bonus was payable by such factories.

(b) If a factory has suffered loss on the year's working, but by drawing upon funds like the Dividend Equalisation Fund or by adding profits from transactions unconnected with the production of sugar it shows profit in its balance-sheet and distributes dividends it shall pay bonus to the workmen at the rate suggested in the Nimbkar Committee in para 198 at page 246-247 of Vol. I, Part I of its report with the following modification, viz., at the rate of 2 day's basic wages for every one per cent dividend declared on ordinary share capital paid up.

(c) Factories crushing over 13 lakh maunds of cane shall pay bonus at the following rates :—

Table No. 105

Quantity of cane crushed in maunds					Rate of bonus 1948-49 per md. of sugar produced		
					Rs.	As.	P.
1.	Over 13 upto 18 lakhs	...	...	...	0	2	0
2.	Over 18 upto 20 lakhs	...	...	...	0	2	6
3.	Over 20 upto 25 lakhs	...	...	...	0	3	0
4.	Over 25 upto 35 lakhs	...	...	...	0	4	0
5.	Over 35 upto 50 lakhs	...	...	...	0	5	0
6.	Over 50 lakhs	...	...	...	0	6	0

(d) Factories crushing cane upto 13 lakh maunds of cane were subject to (a) and (b) above, to pay bonus only if they show any profits on the year's working in their balance sheet at the rate of 20 per cent of such profits.

II—Bonus was to be paid in proportion to each workman's earnings, viz., basic wages plus dearness allowance, if any, during the year 1948-49.

#### BONUS FOR 1949-50 IN U. P.

(1) The Aira Sugar Factory, Gokulnagar Sugar Mills Co. Ltd., Mawana Sugar Works and Rosa (Carew and Co. Ltd.) are exempted from the liability to pay any bonus to their workmen on the working of the crushing season 1949-50.

(2) The 60 factories (specified in Annexure) will pay bonus to their workmen on the working of the crushing season 1949-50 at the following rates:

Quantity of sugar produced in maunds					Rate of bonus		
1.	Upto one lakh	...	...	...	Nil		
2.	Over one lakh and upto 2 lakhs	...	...	...	Annas 2 per maund of sugar produced.		
3.	Over two lakhs and upto 3½ lakhs.	...	...	...	Annas 4 per maund of sugar produced.		
4.	Over 3½ lakhs and upto 5 lakhs	...	...	...	Annas 6 per maund of sugar produced.		
5.	Over 5 lakhs	...	...	...	Annas 8 per maund of sugar produced.		

(3) The factories, mentioned in Annexure will pay 25 per cent of the total amount of remission in excise duty and cane cess to the workmen as additional bonus, save that in the case of the Pipraich Sugar Mills Ltd., Pipraich, this will be the only bonus payable to its workmen.



(4) The Buland Sugar Co. Ltd., Rampur shall pay bonus to its workmen at the rate of annas 6 per maund of sugar produced (in addition to the amount due under (3) above). The amount of interim bonus paid by this factory will be set off against the amount of bonus payable on the findings.

(5) The basis of distribution of bonus shall be seasonal wages (basic wages plus dearness allowance) and not annual wages.

(6) The bonus shall be paid within 6 weeks from the date of this award.

#### BONUS FOR 1950-51 IN U. P.

The U. P. Government have ordered payment of bonus to sugar workers on the basis of production of sugar during the 1950-51 season.

The scale of bonus, fixed by the order, is as follows :—

<i>Quantity of sugar produced in Mds.</i>				<i>Rates of bonus during 1950-51</i>
1.	Upto one lakh	...	...	Nil.
2.	Over one lakh and upto 2 lakhs	...	...	As. 2 per md. of sugar produced
3.	Over two lakhs and upto 3½ lakhs	...	...	As. 4 per md. of sugar produced
4.	Over 2½ lakhs and upto 5 lakhs	...	...	As. 6 per md. of sugar produced
5.	Over 6 lakhs	...	...	As. 8 per md. of sugar produced.

In addition to the bonus payable as above for normal crush, the workmen will get an additional bonus, on the excess sugar produced by the industry for sale in free market. The additional bonus will be 20% of additional profits calculated at the rate of Rs. 21/- per md. of the excess production.

From this amount, deduction will, however, be made for additional expenditure, if any, that might have been incurred by factories in procuring sugar cane at a price in excess of the minimum price fixed by the Government. Allowance will also be made for those factories which incurred losses during the crushing season 1949-50. Such loss, if any, except in the case of the Mawana Sugar Works, Mawana, in the Meerut district, in shifting its plant from Barhni to Mawana, shall be adjusted in the additional profit before 20% of the bonus is calculated.

The Cane Commissioner, U. P., will be the final authority to determine, in the event of any dispute arising in this respect, the amount of additional expenditure which should be allowed in calculation of additional profit.

It has also been laid down that, if any factory has already paid bonus to its workmen in excess of the one payable under the Government order, the excess shall not be recoverable. The bonus, as usual, shall be paid to all workmen in proportion to their earnings during the crushing season 1950-51.

The Government hope that the industry will co-operate in having this order implemented as quickly as possible, and, in any case, within one month of the date of issue of the order, in order to secure a fair deal to the workmen, and to maintain good industrial relations,

#### BIHAR—LABOUR APPELLATE TRIBUNAL'S AWARD

The Labour Appellate Tribunal, Calcutta have given the following award in the appeal preferred before them against the award of Mr. Justice B. P. Sinha relating to the general disputes in sugar industry in Bihar.

## WORKS COMMITTEES WOUND UP

The year 1950 opened with inter-union wrangles in the sugar industry. The representative character of the Indian National Sugar Mills Workers' Federation affiliated to the Indian National Trade Union Congress was disputed by the United U. P. and Bihar Chini Mill Mazdoor Federation sponsored by Shri Shibban Lal Saxena; and the Government offered to hold a census to determine the representative character of the contending unions. The Socialist Party combined with Chini Mill Mazdoor Federation and polled high. The Government thereafter invited nominations for the membership of the works committees from the Chini Mill Mazdoor Federation. The two General Secretaries of the Federation submitted different lists and were not prepared to accept the list of the other under any circumstance. This made the task of nominating representatives of the Federation on the Works Committees impossible. The stalemate resulting, therefrom, was proving increasingly detrimental to the effective functioning of the Works Committee. In these circumstances the Government considered it desirable to wind up Works Committee all over the State (vide Notification No. 2746 (LL)/XVIII dated October 25, 1950). Thus ceased functioning for an indefinite period, a very useful experiment which at one time promised to lead to collective bargaining and to inspire mutual trust and toleration.

## REGIONAL CONCILIATION BOARDS

The Regional Conciliation Boards have been constituted under Government order No. 781 dated the 10th March 1948. If the efforts of the Conciliation Officer to bring about settlement of disputes fail he sends a report to the Labour Commissioner who may refer the case to the Board for adjudication.

The decisions of the Board are appealable before the Industrial Court which consists of the District Judge as President and two assessors, one representing the employers and the other the employees.

*Provincial Conciliation Boards*—Besides the Regional Conciliation Boards, there have been constituted also Provincial Conciliation Boards at Kanpur to deal with important cases. The following figures give the no. of cases coming up and decided by the Board.

Provincial Conciliation Board					No. of cases referred to and those decided in brackets			Pending at the end of 1950
					1948	1949	1950	
Sugar	...	...	...	...	(2)	6 (6)	1 (1)	Nil

*Industrial Courts*—This was constituted at Lucknow under Government Order dated the 10th March, 1948 and is an Appellate Court. It decided 100 cases in 1949 and 87 cases in 1950.

*Court of Enquiry*—Besides all these, the Industrial Disputes Act, 1947 provides for the constitution of a Court of Enquiry for enquiring into any matter appearing to be connected with or relevant to an industrial dispute. A court of Enquiry was constituted under G. O. No. 167 dated the Jan. 11, 1950 to enquire into the industrial dispute between the sugar factories

and their workmen. It was presided over by Shri Justice Bind Basni Prasad, High Court of Judicature, Allahabad. His recommendations were generally accepted by the Government.

*Appellate Tribunal*—The Industrial Dispute (Appellate Tribunal) Act 1950, centralises appellate jurisdiction in the interest of uniformity of case laws throughout India. It hears appeals from the decisions of Tribunals below and from Conciliation Boards where they exist. The headquarters of the Appellate Tribunal are at Bombay but a separate branch has been constituted at Calcutta which also holds its sittings in Uttar Pradesh at convenient centres.

## LABOUR SITUATION

During the year 1950, the number of strikes in sugar industry was only 3 involving 2774 workers. The mandays lost were 18284. The total number of workers retrenched during the year 1950 was 644.

*Census in Sugar Industry*—One of the most notable events in the history of Labour Relations in 1950 was the holding of a census in the sugar factories in pursuance of the decision of the Government to determine the representative character of the three workers' organisations in the sugar industry, viz.:

- (1) The Indian National Sugar Workers' Federation;
- (2) The U. P. and Bihar Chini Mill Workers' Federation;
- and (3) The Hind Mazdoor Sabha.

Lists of workers entitled to vote were put up on the notice boards of factories and Regional Conciliation offices by February 28, 1950 and objections for deletion or addition of names in the lists were to be submitted to the R. C. O. concerned by March 3. The final lists, after the disposal of objections were hung up on by March 7, 1950 and the actual census was held on March 15, 1950.

The result of the voting was that of the total number of 82,999 workers entitled to participate in voting 68,140 actually exercised their right correctly and out of these 47,691 voted for the United U. P. and Bihar Chini Mill Workers' Federation and the remaining for the Indian National Sugar Mill Workers' Federation.

## U. P. SUGAR AND POWER ALCOHOL BILL, 1950

During the course of the year the Government introduced Uttar Pradesh Sugar and Power Alcohol Industries Labour, Welfare and Development Bill, 1950 in the Assembly, the main features of which were:

- (i) The constitution of the U. P. Sugar and Power Alcohol Housing Board
- (ii) The establishment of the (Sugar and Power Alcohol Industries) Labour Welfare Fund
- (iii) Development, consisting of facilities for imparting technical education and training connected with the manufacture of sugar, alcohol and products therefrom, including the growing of sugarcane and the utilisation of bye products of both industries, building of roads and the provisions of facilities for irrigation.

The bill is on the lines of the Central Government's Coal Mines Welfare Fund Act with necessary modifications.

### TRADE UNION ACTIVITIES

The first Association to be formed in the Sugar Industry, namely, the Indian Sugar Mills Association, Calcutta, belonged to the employers. The main object of this Association was to promote and protect commerce and industries connected with sugar. The Association had also as one of its objects, the promotion of good relation between employers and employees, but nothing appears to have been done for the promotion of this object. This Association was averse to the recognition of trade unions formed with the help of outsiders and gave little attention to the formation by the workers themselves. The supply of labour being mostly drawn from the surplus rural labour in the neighbourhood, the workers considered it a boon to get an employment in the slack agricultural season. The employers sometimes refused to employ active trade union workers at the commencement of next season. The workers were therefore, afraid of joining trade unions for fear of losing their jobs.

In 1939, a trade union was formed in a Mill in Kathkhiyan (Gorakhpur) and was registered under the Indian Trade Unions Act 1926. In the war years of 1940, 1941 and 1942 no substantial progress was made in regard to the formations of trade unions in the sugar industry. A number of trade unions were registered during the years 1943 and 1944. Afterwards, this number went on increasing. Now there are two powerful Federations of trade unions of sugar factories in U. P. and Bihar. One is the Indian National Sugar Mill Worker's Federation and the other is the United U. P. and Bihar Chini Mill Mazdoor Federation. On the side of the employers, there was the Indian Sugar Syndicate Ltd., Kanpur which has now gone into voluntary liquidation.

The growth of trade unionism among the sugar factory workers is a recent one. The seasonal nature of the industry and the lack of education among the workers had been two stumbling blocks in the healthy development of trade unions in this industry in the past. Now a healthy beginning has been made and the future of trade unionism in this industry is full of promise. The following table shows the growth of trade union movement in sugar factories in the U. P. from 1945-46 onwards:

Year						No. of trade unions	Membership
1945-46	...	...	...	...	...	4	4,388
1946-47	...	...	...	...	...	28	22,172
1947-48	...	...	...	...	...	67	54,353]
1948-49	...	...	...	...	...	74*	56,108

\* Excluding one Federation with 18 unions affiliated to it.

The following table shows the number of strikes, no. of workers involved and the number of mandays lost for the years 1943 to 1950:

Table No. 106

Period					Total No. of Strikes	Total No. of workersinvolved	Total No. of mandays lost
1943	...	...	...	...	1	1,300	4,550
1944	...	...	...	...	2	650	1,300
1945	...	...	...	...	3	1,501	5,116
1946	...	...	...	...	2	970	1,512
1947	...	...	...	...	18	9,817	26,937
1948	...	...	...	...	13	8,560	19,319
1949	...	...	...	...	3	2,597	4,065
1950	...	...	...	...	3	2,774	18,284

### AMELIORATION OF LABOUR

Government of U. P. have made the following rules in November, 1949, to regulate recruitment in the crushing season of 1949-50. The same rules were in force during 1950-51 also. In October, 1951, the U. P. Govt. again promulgated an order incorporating these Rules.

(a) A worker who had worked, or but for illness or any other unavoidable cause, would have worked in a factory during the whole or the second half of the last preceding season was to be employed during the crushing season of 1949-50 in such factory.

(b) All the seasonal workers who worked during the last season were to be put on their old jobs whether they were in the 'R' shifts or in usual shifts, subject to job or shift transfer to a maximum of 5 per cent of the total number of employees in the factory, without in any way affecting the wages or the status of the workers concerned.

(c) Vacancies caused by dismissal, resignation or death were to be filled by old hands of that particular factory if suitable hands were available.

Further to safeguard the rights of the workers it prohibited in January, 1950, the employers of the sugar factories from discharging, dismissing or otherwise removing any worker from service, without the express permission of the Regional Conciliation Officer of the area concerned.

### LEAVE AND OTHER AMENITIES

In the matter of leave and amenities too the Government has been endeavouring to improve the lot of workers in sugar factories. In the year 1949, Government enforced a list of 17 festival holidays with wages in a calendar in all sugar factories. Besides these the workers were allowed the minimum period of leave as laid down in Section 79 of the Factories Act. This privilege has also been extended to seasonal workers, irrespective of the period of continuous service.

The Government has also introduced a Bill in the Assembly to provide houses for workers in sugar factories out of the fund which has been collected from the sales of molasses. It is

hoped that when the Bill is passed and the Housing Board constituted it will be possible to relieve congestion in the existing quarters and sheds in sugar factories during the crushing season.

The Labour Department also opened two welfare centres, one in Padrauna (Eastern Zone) and the other in Khatauli (Western Zone), for seasonal workers. These provide indoor and outdoor games and run reading rooms and libraries.

### **BINDBASNI PRASAD'S AWARD ON LEAVE AND RETAINER**

#### **Leave**

Provisions about leave contained in Chapter VIII of the factories Act, 1948, apply to all the workers in sugar factories whether working within the premises or precincts of the factory or outside. The effect of sections 78-79 of that Act is that if immediately preceding the commencement of this Act a worker was entitled to more favourable terms of leave according to the custom, usage or rules of the factory or by virtue of the application of the provisions of the U. P. Shops and Commercial Establishments Act, 1947 than those prescribed by the Factories Act, 1948, the former will prevail against the latter. Uniformity in leave rules is desirable but unless the law is changed this is not possible.

2. There is no legal bar in prescribing leave for seasonal employees working for less than 4 months in sugar factories. Such seasonal employees may be allowed leave at the rate prescribed by section 79 of the Factories Act, 1948 irrespective of the period of continuous service and they should be paid wages according to section 80 of that Act. But if in a factory the existing leave rules for seasonal employees are more favourable then they should prevail.

3. Leave may be prefixed or suffixed with holidays, weekly or festival.

4. Leave may accumulate according to sub-section 79 of the Factories Act, 1948 in the case of those to whom that section is, or has been made applicable. Those employees who elect the rules, custom or usage of the factory the provisions regarding accumulation contained therein will apply.

5. Every workman should elect between the system of leave permissible under the custom, rules or usage of the factory and that admissible under Chapter VIII of the Factories Act, 1948. It is not permissible to elect one condition of leave from one system and another from the other. Such an election may be made at any time before a workman proceeds on leave for the first time after the enforcement of the recommendations. But where all the conditions of leave in the custom, rules or usage are more favourable than those in Chapter VIII of the Factories Act, such an election is not necessary. An election once made is irrevocable.

6. Management may grant leave at its discretion to an employee in excess of the scale recommended in view of his efficiency and loyalty.

7. Wages in lieu of leave is not recommended unless by virtue of Chapter VIII of Factories Act, 1948, or by custom, rules or usage of a factory a worker is entitled to them. The management, however, may grant such wages with the consent of the employees and then the period for which such wages are paid will be set off against the leave.

### Retainer

(1) There is no valid ground for the award of retaining allowance to the unskilled seasonal workers in the sugar factory.

(2) The skilled seasonal employees and the clerical staff should be allowed retaining allowance at the rate of 50 per cent of their consolidated wages, and paragraph 3 of the Labour Department notification, dated, January 29, 1948, should be amended so as to include the following class of skilled workmen;

The boiler-in-charge of boiler foreman or boiler attendant, fitter incharge (foreman), millhouse-in-charge and boiling-house incharge, electrician, assistant engineer, juice foreman, pH. controller, analysts, welder, carpenter, turner, fireman, beltman, switchboard attendant, all mates and cane carrier munshis.

### COMMITTEES

The policy of the U. P. Government has been to associate men in public life and representatives of employers and employees in long term inquiries. This helps to keep the representatives of the people in touch with the planning by the Government and enables it to have the different points of view in making its decision. With these ends in view, the Government appointed a committee, *inter alia*, to report on the standardisation of wages and musters in 1949.

### STANDARDISATION COMMITTEE

The Sugar Sub-Committee of the U. P. Labour Enquiry Committee submitted its report on the standardisation of wages and musters in 1950, but the scope of the inquiry was not quite comprehensive and hence the Government appointed a Standardisation Committee to go into the question of wage structure, work load and the financial implications vide Government Notification No. 695 dated March 1, 1950.

The committee consists of Mr. M. C. Pant, chairman and Sahu Jagdish Prasad, Managing Director of the Pilibhit Sugar Factory and Mr. K. N. Pandey, General Secretary of the Indian National Mill Worker's Federation, members. Mr. D. R. Parashar, Associate Professor at the Indian Institute of Sugar Technology, Kanpur will be the Committee's technical expert.

The questionnaire, among other things, calls for information on annual production, employment, working days and wages for the years 1938-39, 1948-49 and 1949-50, capacity of the plant when installed and the nature of power used at present, wages movement from 1939 onwards, job content, amount spent on welfare work and common amenities and effect on employment and on the wage bill of the shortening of working hours and increase in permanent employment.

## A LIST OF NOTIFICATIONS ON LABOUR MATTERS

S.L.	Notification No.	Subject
1.	No. 6724 (ST)/XVIII, dated Dec. 10, 1948.	Conditions of exemption to Sugar Factories from Industrial Employment (S. O.) Act, 1946.
2.	No. 8376 (ST)/XVIII, dated Dec. 28, 1948.	Order sanctioning increases in the prevailing wages of workmen employed in Sugar factories.

## 1949

3.	No. 371 etc., dated Feb. 7, 1949.	Declaring Sugar Industry to be a Public Utility Service for another six months.
4.	No. U-20, dated Feb. 9, 1949.	Bonus by the Sugar factories in U. P.
5.	No. 91 (LL), dated Feb. 9, 1949	Formation of Works Committees.
6.	No. U. O. 20 (ST)/XVIII, dated Feb. 15, 1949.	Amendment of G. O. Sl. No. 4 above regarding bonus.
7.	No. 822 (ST) etc., dated March 22, 1949.	Grant of increase in wages of sugar factories.
8.	No. 306 (LL)/XVIII, dated March 25, 1949.	Exemption to drivers of Motor Vehicles employed by the vacuum pan Sugar factories when they are on duty outstation from their H. Q. from the operation of certain sections of U. P. S. & C. Estts. Act 1947.
9.	No. 1490 (ST) etc., dated April 21, 1949.	Ordering every sugar factory in U. P. to issue wage slip, leave pass, registration card and service certificate.
10.	No. 1959, dated April 30, 1949	Change in the designation of the U. P. and Bihar Sugar Mill Workers' Federation to Indian National Sugar Mill Workers' Federation.
11.	No. 3206 (ST)/etc., dated August 3, 1949.	Declaring sugar Industry for a further period of six months to be a Public utility service.
12.	No. 3644 (ST)/XVIII etc., dated Sept. 16, 1949.	Extension of the term of agreement reached between Sugar factories and their workers.
13.	No. 4288 (ST) etc., dated Nov. 10, 1949.	Regarding Employment of seasonal workmen in Sugar factories.

## 1950

14.	No. 167 (ST) etc., dated January 11, 1950.	Constituting a Court of Enquiry to settle disputes of sugar factory workers.
15.	No. 167 (ST) (i), dated Jan. 11, 1950.	Prohibiting the sugar factories except with the written permission of the R. C. O. of the respective area, from discharging, dismissing or otherwise removing from service any of their workmen.



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| 16. No. 167 (ST) (ii),<br>dated Jan. 11, 1950.   | Ordering every sugar factory to give festival holidays with wages to its employees.   |
| 17. No. 192 (ST)/XVIII,<br>dated Jan. 12, 1950.  | Amending G. O. No. 167 dated Jan. 11, 1950.   |
| 18. No. 217 (ST)/XVIII,<br>dated Jan. 13, 1950.  | Amending G. O. No. 167 dated Jan. 11, 1950.   |
| 19. No. 442 (ST), dated Feb. 1,<br>1950.         | Declaration of Sugar Industry as Public Utility Service for 6 months.   |
| 20. No. 695 (ST)/XVIII,<br>dated March 1, 1950.  | Appointment of Committee on Standardisation of salaries and Fixation of Grades.   |
| 21. No. 699 (LL)/XVIII,<br>dated March 30, 1950. | Directing that the United U. P. and Bihar Chini Mill Mazdoor Federation, Lucknow be the "recognized Workmen's Organisation" in place of the U. P. and Bihar Sugar Mill Worker's Federation subsequently styled as Indian National Sugar Mill's Worker's Federation. |
| 22. No. 1045, dated April 5, 1950                | Court of Inquiry to submit its report to Govt. by April, 15, 1950 reg. disputes in sugar factories.   |
| 23. No. 999 (ST), dated May 2,<br>1950.          | Change in the composition of the Committee on Standardisation of salaries and Fixation of grades in the Sugar Industry in U. P.   |
| 24. No. 1253 (ST)/XVIII,<br>dated May 8, 1950.   | Publication of Report of the Court of Inquiry reg. bonus, etc.  |
| 25. No. 1636 (ST), dated June 14,<br>1950.       | Submission of Report by Sept. 30, 1950 by the Committee on the Standardisation of Salaries and Fixation of grades in sugar industry of U. P.  |
| 26. No. 1425, dated July 5, 1950.                | Report of the Court of Inquiry reg. dispute in Sugar factories.   |
| 27. No. 442, dated Aug. 3, 1950.                 | Sugar Industry declared as Public Utility Service for another six months.   |
| 28. No. 1945, dated Sept. 2, 1950.               | Award on the industrial disputes between thirty one sugar factories and their workmen.  |
| 29. No. 2565, dated Sept. 27, 1950.              | Submission of report by Dec. 31, 1950 by the committee on Standardisation of Salaries, etc.   |
| 30. No. 3070, dated Nov. 8, 1950.                | Rules for seasonal workmen employed in sugar factories.   |
| 31. No. 1776, dated Dec. 2, 1950.                | Increase in wages in every sugar factory.   |

## Chapter XVII

### FISCAL MEASURES

#### WITHDRAWAL OF PROTECTION, CANE CESS AND STATE AID TO AGRICULTURE

##### A—PROTECTION

*Short History—*(a) Pre-Protection Period (1925-32). The sugar industry has enjoyed the benefit of high protection for a period of about 18 years from April 1932. Imported sugar had been subject to a high revenue duty even before the sugar industry became a protected industry in 1932. The rate of revenue duty before 1925 was as follows:—

1894-95 to 1915-16	...	...	...	...	...	...	5%	ad valorem
1916 to 1921	...	...	...	...	...	...	10%	ad valorem
1921-22	...	...	...	...	...	...	15%	ad valorem
1922-25	...	...	...	...	...	...	25%	ad valorem

In June, 1925, the ad valorem duty was converted into a specific one and the rate was raised to Rs. 4-8-0 per cwt. This remained in force for nearly 5 years, the estimated c. i. f. price of Java sugar was about Rs. 8-8-0 per cwt. Thus the specific duty worked out to 50 per cent. In March, 1930, the duty was raised to Rs. 6-0-0 per cwt. The estimated c. i. f. price of Java sugar at that time was Rs. 5-0-0 per cwt. The duty thus works out to 120 per cent. In March, 1931 the duty was raised to 7-4-0 per cwt. The c. i. f. price of Java sugar at that time was Rs. 3-12-0 per cwt. and on this basis the duty worked out to 190 per cent. In Sept. 1931, surcharge of 25% was imposed on the duty on sugar, thereby raising the total import duty to Rs. 9-1-0 per cwt. The c. i. f. price of Java sugar at that time was about Rs. 5-8-0 per cent. Thus the duty worked out to 165 per cent. From June, 1925 to March, 1932, the sugar industry enjoyed the advantage of high rates of specific revenue duty ranging between 50 to 190 per cent.

##### (b) PROTECTION PERIOD 1932-49

In May, 1930, Govt. of India referred to the Tariff Board, for enquiring the claim of the sugar industry for protection. The Tariff Board in its report submitted in January, 1931, recommended that protection should be granted to the sugar industry for a period of 15 years and that protective duty at the rate of Rs. 7-4-0 per cwt. should be levied for the first 6 years and at the rate of Rs. 6-4-0 per cwt. for the remaining period. An additional duty of annas 8 per cwt. was also recommended in case the landed cost of sugar at Calcutta fell below Rs. 4-0-0 per md. In the meantime, under the Finance Act of 1931, the duty on sugar was raised from Rs. 6-0-0 to Rs. 7-4-0 per cwt. and in the supplementary budget of September, 1931, a surcharge of 25% was imposed on the duty of sugar thus raising it to Rs. 9-1-0 per cwt. The sugar industry (Protection) Act (1932) was passed in April, 1932. Since the revenue duty on sugar had been already raised to Rs. 9-1-0 per cwt., the Protection Act merely converted this revenue duty of Rs. 9-1-0 per cwt. into a protective duty of Rs. 7-4-0 per cwt. plus a surcharge of 25% thereon. Protection was granted for a period of 14 years ending 31st March, 1946. The protective duty of Rs. 7-4-0 per cwt. was to remain in force until 31st March, 1938.

## EFFECT OF PROTECTION

On account of the extra protection (25 percent surcharge) there was a rapid expansion of sugar industry and production began to increase very rapidly. Thus the number of vacuum pan factories increased from 29 in 1930-31 to 57 in 1932-33 and 112 in 1933-34. During the same period production of sugar rose from 120,000 to 454,000 tons. At the same time, there was a serious fall in the revenue on sugar; this revenue was reduced from about Rs. 10 crores in 1930-31 to about Rs. 2 crores in 1933-34. It was also discovered that the benefit of protection was entirely reaped by factory owners and the cane growers for whose benefit the protection was devised did not benefit.

In 1934, therefore, Government reviewed the whole position and imposed excise duty on sugar so as to neutralise the extra protection enjoyed by the industry and at the same time to recoup the loss to Govt. due to fall in custom revenue. On the other hand they passed legislation enabling Provincial Govt. to enforce a minimum price to be paid by the factories to the cane grower. The excise duty was fixed at Rs. 1-5-0 per cwt. and this reduced the amount of protection from Rs. 9-1-0 to Rs. 7-12-0 per cwt. In 1937, the excise duty on sugar was increased from Rs. 1-5-0 to Rs. 2/- per cwt. and thus reduced the amount of protection from Rs. 7-12-0 to Rs. 7-4-0 per cwt. This duty was due to expire on 31st March, 1938. The Tariff Board of 1938 recommended for a protective duty of Rs. 7-4-0 per cwt. for a period of 8 years ending 31st March, 1946. Pending Government decision on the Board's report, the then existing protective duty of Rs. 7-4-0 per cwt. was extended by one year from 1st April, 1938 to 31st March, 1939. In the meantime, the price of imported sugar had gone up to some extent and in 1938, Governments of U. P. and Bihar had imposed a cess on cane supplied to the factories and had decided to strictly enforce the minimum price regulation for cane. The Govt. of India took account of these changes and decided to extend protection by 2 years ending 31st March, 1941. The amount of protective duty was fixed at Rs. 6-12-0 per cwt. In March, 1940, the excise duty on factory sugar was increased by Rs. 1-0-0 from Rs. 2-0-0 to Rs. 3-0-0 per cwt. and to offset this, the total import duty (including excise duty) was raised to Rs. 9-12-0 per cwt. In April, 1940, a revenue surcharge of 20 percent on the import duty was imposed and the total duty was thereby raised to Rs. 11-11-2 per cwt. This duty was continued until 31st March, 1947.

The Tariff Board held a summary inquiry in February, 1947 and recommended that the then existing protection should be continued for a further period of 2 years ending 31st March, 1949. The Board also recommended that the Central Government grant to the Indian Central Sugarcane Committee from the sugar excise duty should be increased from 1 anna to 4 annas per cwt. Government decided to accept the Board's recommendation to continue protection to the sugar industry till March, 1949, Govt. also raised the grant to the ICSC from 1 anna to 4 annas per cwt. until further orders.

## SHARES TO GOVERNMENT AND CULTIVATORS IN LAST 17 YEARS OF PROTECTION (1932-1949)

								<i>Crores of Rupees</i>
Government (Total)	...	...	...	...	...	...	...	115
(a) Provincial Governments from cane cess	...	...	...	...	...	...	...	25
(b) Central Government	...	...	...	...	...	...	...	90
(1) From excise Duty	...	...	...	...	...	...	...	70
(2) From Income tax	...	...	...	...	...	...	...	20
Cane Charges (Total)	...	...	...	...	...	...	...	325
(a) Cultivator	...	...	...	...	...	...	...	315
(b) Transport	...	...	...	...	...	...	...	5
(c) Commission to Co-operative Societies	...	...	...	...	...	...	...	5

### IMPORT DUTY SINCE MARCH, 1951

1. Present Revenue duty on Sugar	Rs. 6-12-0 per md.
2. The rate of surcharge over it	25% of (1).
3. The rate of Excise Duty per cwt.	Rs. 3-12-0
4. The rate of Surcharge on Excise duty	25% of Excise Duty.
5. Total Import Duty on foreign sugar	Rs. 13-2-0 per cwt.

### RECOMMENDATIONS OF THE TARIFF BOARD OF 1948

The Tariff Board was asked to examine in detail the question of protection enjoyed by the Sugar Industry, which was due to expire on the 31st March, 1949. The Board, having examined the matter submitted its report to Government and made the following recommendations.

(1) The protection of the industry has to be continued until the cost of production in this country has been substantially reduced. The existing protection should be continued for a period of two years ending 31st March, 1951. There should be a detailed enquiry at the beginning of 1950 in order to determine the quantum of protection, if any, that should be necessary after 31st March, 1951.

(2) The efficiency of some of the factories in India particularly in the U. P. and Bihar can be definitely increased by shifting them to more suitable localities and/or by making additions and alteration to their plants. The U. P. and Bihar Governments should institute an early inquiry into the conditions of the factories with special reference to their location and plants, and in the light of the findings of such inquiry, call upon sugar mill companies to shift their factories and/or balance their plants at an early date.

(3) The Central Government should continue to allocate funds to the Indian Central Sugarcane Committee for carrying out its five-year plan of research and development. The Provincial Government should intensify their efforts to help the cane growers in utilising the

result of research and thereby improving the yield and quality of cane. The representatives of sugar mills should be associated with sugarcane development work in the provinces.

(4) The Central Government, in consultation with the Provincial Governments, should review their plan for expansion of the sugar industry.

(5) It was suggested by the sugar merchants that the Indian Sugar Syndicate manipulated the price margins for different grades of sugar as well as the extra for freight advantage; that the syndicate also sometimes created artificial scarcity by reducing the quotas for despatches from the factories and that some of the factories charged higher prices by putting wrong grade number on the sugar bags. The U. P. and Bihar Sugar Commission should investigate at an early date the question of price margins, extras for freight disadvantages as well as the method of allocation of quotas for despatches and the practice of marking the grades on the sugar bags.

(6) The Central Government should take powers to ensure that the prices of sugar, as fixed by the Sugar Syndicate, are fair and reasonable. Sugarcane price should be fixed by the different provinces with the approval of the Government of India.

### **PARLIAMENT REDUCES THE PERIOD OF PROTECTION**

The Constituent Assembly (Legislative) on March 25, 1949 passed the Commerce Minister's Protective Duty (Miscellaneous Provisions) Bill continuing protection to the sugar industry, with an amendment by Prof. Shibbanlal Saxena, reducing the period of protection for the sugar industry from two years to one year.

### **LONG TERM ENQUIRY BY THE TARIFF BOARD**

The protection granted to the sugar industry under the Government of India (Ministry of Commerce) Resolution No. 33(I)-TB/49 dated the 17th June, 1949 was due to expire on 31st March, 1950 and that according to para 2 of this Resolution the Govt. of India in their Resolution No. 33(I)-TB/49 dated 1st July, 1949 directed the Tariff Board to hold a fuller enquiry into the question of continuance of existing protection to the sugar industry in accordance with the term of reference set out below:—

#### **TERMS OF REFERENCE**

(a) Whether the Sugar industry will require, and should be granted protection after March, 1950 and if so, for what period, to what extent and on what basis and subject to what conditions including the rationalisation of cultivation of sugarcane as well as sugar manufacture, fixation and control of prices of sugarcane and sugar and other auxiliary matters such as labour conditions and State assistance for the sugar industry.

(b) Whether any quantitative limit to production should also be imposed having regard to the necessity or otherwise for national self-sufficiency in this commodity, the advantage arising out of an export market in sugar, the effective utilisation of bye-products and the industrial and other advantages arising therefrom.

### **TARIFF BOARD RECOMMENDS WITHDRAWAL OF PROTECTION**

“Having regard to the country's balance of payments difficulties, we may reasonably assume that, though there is a possibility of imports being arranged for by Government, such imports

are not likely to be larger than what will be needed to supplement the internal production and/or to check any undue tendency of the sugar price to rise. On the basis of our estimates of demand and supply at the present time, the maximum import that may be permitted is not likely to exceed 1 lakh tons.

On the basis of the figures, and in the light of our information about current world market conditions, we estimate that the c. i. f. price of imported sugar will be in the neighbourhood of Rs. 22/- per maund.

The difference between the present price of indigenous sugar (Rs. 28-8-6) and the estimated landed cost ex-duty (Rs. 22-8-0) being Rs. 6/- per maund, the present duty of Rs. 6/- per maund would give adequate protection to the indigenous sugar industry, if such protection were needed. There is, however, no danger of any competition from low-priced import of sugar on an appreciable scale for the next two or three years, because the surplus sugar available for the 'free market' is likely to continue to be small and, particularly, because, in the context of the present balance of payments position of the country, Government are not likely to permit imports of large quantities of sugar. Further according to our estimate, the fair ex-factory price of indigenous sugar (B27) can be reduced to Rs. 24-12-0 per maund in 1950-51. We have felt that the continuance of protection for the last 18 years has produced an attitude of complacency on the part of the three parties, viz., Government, the industry and the cultivator, who are responsible for the efficiency of the industry, and that, consequently, they have not taken sufficient steps to improve the overall efficiency of the industry so as to bring down the cost of production. We, therefore, consider that this is the most suitable opportunity to withdraw the protection without any serious risk to the industry. We, accordingly, recommend that the protection to the sugar industry would not be continued beyond 31st March, 1950, Government being free thereafter to impose such revenue duty as they consider necessary.

"If there is a change in Government's policy regarding imports of sugar in the near future, giving rise to severe competition from foreign imports so as to jeopardise the position of the sugar industry, it will be open to the industry to approach Government for the restoration of protection. And we have no doubt that Government will institute an inquiry to review the position as expeditiously as possible and restore protection to the industry, if it is found to be justified"

#### **BOARD'S RECOMMENDATION ON CONTINUANCE OR WITHDRAWAL OF PROTECTION**

"The present duty of Rs. 6 per maund is equivalent to about 27 per cent ad valorem on the basis of the estimated c. i. f. price of Rs. 22 per maund. The current general rate of revenue duty in the country is 30 percent and, in some cases, 36 percent, ad valorem. Consequently, a protective duty of about 27 percent ad valorem may be considered to be a moderate rate. In this connection, it may be pointed out that the current ex-factory price of Rs. 28-8-0 for indigenous sugar includes a cane cess of Rs. 1-14-0 and excise duty of Rs. 2-12-0 per maund of sugar. If these two items of cost were taken out, the figure would be reduced to Rs. 23-14-0 per maund. This would be in excess of the present landed cost ex-duty by Rs. 1-6-0, and the difference should

be covered by a duty of  $6\frac{1}{2}$  per cent. In view of the facts that the protection of the industry has caused an enormous expansion in the production of sugar to the point of making India self-sufficient in respect of this article, that it has led to the introduction of improved agricultural practices in the cane areas and thereby benefited the cane grower, that, by creating an important revenue of employment in some of the most densely populated areas in the country, e.g., East U. P. and North Bihar, it has relieved the pressure of population on land, and that it has led to a distinct improvement in the economic condition of the cane growers as well as workers in the sugar factories, the industry would deserve the continuance of protection for a further period if there was a risk of its being exposed to severe foreign competition. But, as we have stated earlier, there has been no competition from foreign imports during the last eight or nine years. We have also seen that there is no danger of any competition from low-priced imports of sugar on an appreciable scale for the next two or three years, because the surplus sugar available for the free market is likely to continue to be small and, particularly, because in the context of the present balance of payments position of the country, Government are not likely to permit imports of large quantities of sugar. It is, of course, possible that the country's balance of payments position may improve in the next two years, when it may be possible to allow imports on a fairly large scale. Even so, we consider that the indigenous sugar industry can effect sufficient economies in its cost of production in the next two years so as to reduce the difference between the prices of imported and indigenous sugar. According to our estimate, the fair ex-factory price of indigenous sugar (E27) can be reduced to Rs. 24-12-0 per maund in 1950-51. On this basis and on the assumption that the ex-duty landed cost of imported sugar would continue to be about Rs. 22-8-0 per maund, the difference between the two prices will be reduced to Rs. 2-4-0. This difference would be covered by a duty of 10 per cent only. We believe that the general rate of revenue duty would continue to be 30 per cent ad valorem for the next two or three years, at any rate, and that consequently, such a rate of revenue duty would adequately safeguard the position of the sugar industry. It may, however, be agreed that, since the current rate of protective duty (i.e., 27 per cent) is moderate and since it is inoperative at the present time, there would be no objection to the continuance of this protection for another two or three years until the fair ex-factory price of indigenous sugar has been reduced to the level of the current landed cost ex-duty, viz., Rs. 22-8-0. There is some force in this contention. But, from the evidence we have received, we have felt that the continuance of protection for the last eighteen years has produced an attitude of complacency on the part of the three parties, viz., Government, the industry and the cultivator, who are responsible for the efficiency of the industry, and that, consequently, they have not taken sufficient steps to improve the over-all efficiency of the industry so as to bring down its cost of production. We also consider that, since there is no risk of any serious competition from foreign imports for the next one or two years, this is the most suitable opportunity to withdraw the protection without any serious risk to the industry. If, however, there is a change in Government's policy regarding imports of sugar in the near future, giving rise to severe competition from foreign imports so as to jeopardise the position of the sugar industry, it will be open to the industry to approach Government for the restoration of protection. And we have no doubt that Government will institute an inquiry to review the position as expeditiously as possible and restore protection to the industry, if it

is found to be justified. In view of the reasons given above, we recommend, that the protection to the sugar industry should not be continued beyond 31st March, 1950, Government being free there after to impose such revenue duty as they consider necessary."

Table No. 107

*Excise Duty and Import Duty on Sugar in India*

Duration of enforcement	Protective Import Duty		Excise Duty		Total Import duty	
	Per Cwt.	Per md.	Per Cwt.	Per md.	Per cwt	Per md.
	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.	Rs. as. p.
1-4-1932 to 31-3-1934	7-4-0	5 5 4	Revenue Sur- charge @ 25% on Import Duty. 1-13-0	1 5 4	9 1 0	6 10 8
1-4-1934 to 27-2-1937	7 12 0	5 11 2	Equivalent ex- cise duty./ 1-5-0.	0 15 6	9 1 0	6 10 8
28-2-1937 to 31-3-1939	-/8/- additional margin.		Equivalent Ex- cise duty.			
	7 4 0	5 5 4	2 0 0	1 7 6	9 4 0	6 12 10
1-4-1939 to 28-2-1940			Equivalent Ex- cise Duty.			
	6 12 0	4 15 6	2 0 0	1 7 6	8 12 0	6 7 0
1-3-1940 to 31-3-1942			Equivalent Ex- cise Duty on domestic pro- duction of fac- tory sugar.			
	6 12 0	4 15 6	3 0 0	2 3 3	9 12 0	7 2 9
1-4-1942 to 28-2-1949	8-1-7 including Surcharge of 20% on Im- port duty of Rs. 6-12-0 per Cwt.	5 15 3	3 0 0 plus surcharge of 20% on ex- cise duty of Rs. 3-0-0 per Cwt.	2 3 3	11 11 2	8 9 6
1-3-1949 to 31-3-1950	8-1-7 including Surcharge of 20% on Im- port duty of Rs. 6-12-0 per Cwt.	5 15 3	3 12 0 plus surcharge of 20% on ex- cise duty of Rs. 3-12-0 per Cwt.	2 12 1	12 9 7	9 4 0



Table No. 107 (Contd.)

Revenue Duty				
From 1st April, 1950	Protective Duty of Rs. 6/12 per cwt. converted into Revenue duty of the same amount plus surcharge of 20% on Revenue Duty of Rs. 6/12/-	-do-	12 9 7 9 4 0	
From 1st March, 1951	Revenue duty Rs. 6/12/- per cwt.	Revenue Surcharge @ 25% on Revenue duty plus Equivalent Excise duty Rs. 3/12/- per cwt. with 25% surcharge.	13 2 0 9 10 3	

Table No. 108

Revenue Derived from Excise Duty During 1939-40 to 1950-51

Year	Excise duty from Khandsari sugar in '000 Rupees	Excise duty from sugar other than Khandsari '000 Rs.	Year	Excise duty from Khandsari sugar in '000 Rupees	Excise duty from sugar other than Khandsari '000 Rs.
1939-40 ...	146	2,4760	1946-47 ...	239	6,38,83
1940-41 ...	286	3,90,11	1947-48 ...	1st April to 14th Aug. 86	2,11,14
1941-42 ...	443	6,68,27		15th Aug. to 31st March 114	2,75,62
1942-43 ...	160	4,89,24			
1943-44 ...	509	7,19,42	1948-49 ...	215	6,47,94
1944-45 ...	990	7,68,59	1949-50 ...	223	7,23,91
1945-46 ...	632	5,79,81	1950-51 ...	238	6,54,49

Table No. 109

Yield of Revenue from Import Duty on Sugar in India from 1931-32 to 1950-51

Year (April to March)	Yield of Revenue (Rupees)	Year (April to March)	Yield of Revenue (Rupees)
1931-32 ...	7,97,63,000	1941-42 ...	1,94,000
1932-33 ...	6,84,79,000	1942-43 ...	56,000
1933-34 ...	4,72,04,000	1943-44 ...	4,14,000
1934-35 ...	3,81,35,040	1944-45 ...	1,000
1935-36 ...	3,24,16,000	1945-46 ...	14,000
1936-37 ...	50,52,000	1946-47 ...	2,000
1937-38 ...	25,33,000	1947-48 ...	Nil.
1938-39 ...	45,22,000	1948-49 ...	23,53,000
1939-40 ...	3,96,08,000	1949-50 ...	100,000
1940-41 ...	18,24,000		(Budget Estimated)
		1950-51 ...	67,911

## B—CANE CESS AND STATE AID TO AGRICULTURE

The Provincial Governments of U. P. and Bihar have been levying a cess on the amount of cane crushed by sugar factories since 1938-39 in order to raise a revenue for the purpose of cane development, although only a part of the total annual revenue has been spent so far. This revenue should have been the source for financing research with which the prosperity of the agriculturists and that of the industry are closely linked.

The rate of cess in U. P. and Bihar since 1938-39 to 1943-44 is given below :

Year						U. P.		Bihar	
						Rs.	as. p.	Rs.	as. p.
1938-39	...	...	...	...	...	0	0	6	0 0 6
1939-40	...	...	...	...	...	0	0	6	0 0 6
1940-41	...	...	...	...	...	0	0	9	0 0 9*
1941-42	...	...	...	...	...	0	0	6	0 0 6
1942-43	...	...	...	...	...	0	0	6	0 0 6
1943-44	...	...	...	...	...	0	1	0	0 1 0

\* 6 pies out of this were for repayment of loan.

The rate of cane cess and the amount realised in U. P. and Bihar in recent years is given below in Table No. 110.

Table No. 110

*Rate of Cane Cess and Revenue Realised in U. P. and Bihar*

Year						Rate of cess per md.	Total Revenue from cess	Expenditure on cane Development Scheme
						Rs. as. p.	Rs.	Rs.
U. P.								
1944-45	...	...	...	...	...	0 1 0	1,11,92,000	2,57,200
1945-46	...	...	...	...	...	0 1 0	93,62,542	1,93,350
1946-47	...	...	...	...	...	0 1 0	87,04,900	1,17,000
1947-48	...	...	...	...	...	0 3 0	1,85,33,422	...
1948-49	...	...	...	...	...	0 3 0	2,98,78,688	37,36,642
1949-50	...	...	...	...	...	0 3 0	2,92,55,777	41,18,200
1950-51	...	...	...	...	...	0 3 0	...	...
Bihar								
1944-45	...	...	...	...	...	0 1 0	7,49,402	...
1945-46	...	...	...	...	...	0 1 0	18,05,421	8,07,307
1946-47	...	...	...	...	...	0 1 0	35,10,433	9,61,939
1947-48	...	...	...	...	...	0 3 0	24,57,000	11,43,903
1948-49	...	...	...	...	...	0 2 0	63,19,071	14,37,856
1949-50	...	...	...	...	...	0 3 0	1,13,45,065	...
1950-51	...	...	...	...	...	0 3 0	...	...

The above information relating to U. P. was given by Mr. Har Govind Singh, Minister for Development in the U. P. Legislative Council in September, 1951. He also informed that income from cess was merged in general revenue and no portion thereof was earmarked for any specific object. The Government, however, incurred necessary expenditure each year from general revenues on the Development of cane in sugar factory zones. Cane development work was being done in all the zones of sugar factories. The Government did not propose to earmark in future any funds out of the income from cess.

In Bihar also the same policy was being followed till 1948 when it was announced that except in times of financial crisis, the proceeds of the cane cess will be mainly available for sugar cane cultivation and research.

#### DETAILS OF EXPENDITURE ON CANE DEVELOPMENT IN U. P.

The State Government incurred the following expenditure from general revenues on the development of cane and other allied schemes.

Item	1948-49	1949-50
1. Cane Development ... ..	36,81,600	40,42,100
2. Reservation and Bending of Sugarcane ... ..	49,400	39,900
3. Expenditure on staff for Administration of U. P. Sugar Factories Control Act and Rules ... ..	16,000	20,500
4. Sugar Commission ... ..	35,300	41,000
Total ...	37,82,000	41,43,500

#### SUGARCANE CESS IN BOMBAY AND MYSORE

A cane cess at the rate of 3 annas per maund has been levied on cane crushed in sugar factories in Bombay State since October, 1948, and at the rate of Rs. 6/- per ton in Mysore State since 1947-48 season. The revenue from the sugarcane cess in Bombay for the period ending 30th September, 1949 including the arrears from 1st January, 1948 amounted to Rs. 41,80,609. In Mysore the proceeds from the cess amounted to about Rs. 12 lakhs during the season 1948-49.

#### BOMBAY SUGARCANE CESS (AMENDMENT) ACT, 1950

The Bombay Government by Gazette Extraordinary published on 29th March, 1951, announced that the rate of cane cess at five rupees per ton shall be levied with effect from 1st April, 1951.

**Table No. 111**  
*Cane Cess in 1950-51 and 1951-52*

Year				U. P. & Bihar Rate per md.	Bombay	Mysore
1949-50	...	...	...	0 3 0	0 3 0	0 3 6*
1950-51	...	...	...	0 3 0	0 3 0	0 3 6
1951-52	...	...	...	0 3 0	5 0 0 (Per ton)	0 3 6

\* @ Rs. 6/- per ton.

### EXPENDITURE ON CANE DEVELOPMENT IN BOMBAY

The proceeds of the cess recovered under the Bombay sugarcane cess Act, 1948 are kept under a separate fund known as the "Provincial Sugarcane Cess Fund" and are proposed to be utilised in the manner indicated in Section 11 of above Act. A provision for expenditure on extensive research scheme on sugarcane costing about Rs. 4.82 lakhs was made and it is learnt that nearly Rs. 4 lakhs have been spent during the year 1949-50. This expenditure works out to nearly 10% of the total revenue collected from 1st January, 1948, to 31st March, 1949. During 1950-51 the Government of Bombay intend to spend Rs. 2.75 lakhs out of Rs. 45 lakhs to be realised from the cess.

### REMISSION OF CANE CESS IN 1949-50

It will be recalled that one of the concessions which was promised to the industry in November, 1949 for the maximisation of sugar production was the remission of cane cess by State Governments on excess cane crushed by the mills. In U. P. the Government agreed to allow rebate on extra crush to the extent of 50 per cent of cess (at Rs. 0-1-6 per md.) in the case of sugar factories situated in Meerut, Rohilkhand and Central Ranges and total remission of cess on extra crush to the sugar factories in the Eastern and Mid-Eastern Ranges. Government also decided that the 50% cess collected on extra crush from sugar factories in Meerut, Rohilkhand and Central Ranges should be distributed as a subsidy to factories in the Eastern and Mid-Eastern Ranges. This subsidy was to be distributed rateably on the production maundage of each factory in the 1949-50 crushing season irrespective of whether or not it crushed any quantity in excess of the previous season. The above rebate was not paid to the factories till the end of 1950. According to reports, 32 factories in U. P. were able to crush extra quantity of cane amounting to about 129.64 lakh maunds. Thus the total rebate to be allowed will come to about Rs. 24.3 lakhs.

### BIHAR

In Bihar no announcement was made till the 14th April, 1950 and this led to a great misunderstanding on the part of sugar factories. As an inducement for increasing production

and to encourage the factories in the realisation of increased production, the Government of Bihar allowed a rebate of  $-\frac{1}{3}$ - per md. on extra cane crushed during 1949-50 as compared with last year. The above concession was subject to the factories clearing by 25th June, 1950 the entire dues up to-date of Co-operative Societies Commission.

The amount of cess refunded at the above rate on excess cane for individual factories is given in the following table.

Table No. 112  
*Remission of Cane Cess in Bihar During 1949-50*

Name of Factory	Excess cane crushed in 1949-50 Mds.	Amount of cess refunded at the rate of $-\frac{1}{3}$ - per md. on excess Crush		
		Rs.	As.	P.
1. Harkhua ...	84,776 $\frac{3}{4}$	15,895	10	3
2. Sidhwalia ...	5,56,400 $\frac{3}{4}$	1,04,325	2	3
3. Mirganj ...	3,21,341 $\frac{1}{4}$	60,251	7	9
4. Pachrukhi ...	6,21,683	1,16,565	9	0
5. Marhowrah ...	7,31,749 $\frac{7}{8}$	1,37,203	1	9
6. Sitalpur ...	8,26,850	1,55,034	0	0
7. Harinagar ...	9,42,764 $\frac{1}{4}$	1,76,768	4	9
8. Narkatiaganj ...	11,40,587 $\frac{1}{2}$	2,13,860	2	6
9. Chanpatia ...	4,77,470 $\frac{1}{2}$	89,525	11	6
10. Lauriya ...	1,18,946	22,302	6	0
11. Majhulia ...	8,55,774 $\frac{1}{2}$	1,60,457	11	6
12. Motihari ...	5,33,881	1,00,102	11	0
13. Barachakia ...	10,06,753 $\frac{1}{4}$	1,88,766	3	9
14. Righa ...	11,49,759 $\frac{1}{2}$	2,15,579	14	6
15. Motipur ...	8,61,873 $\frac{1}{4}$	1,61,601	3	9
16. Ryam ...	4,06,574 ...	76,232	10	0
17. Lohat ...	8,32,514	1,56,096	6	0
18. Samastipur ...	4,86,304 $\frac{3}{4}$	91,182	2	3
19. Hasanpur ...	8,84,132 $\frac{1}{2}$	1,65,774	13	6

*The Following Cases were Under Consideration*

Name of factory	Cane Crushed Excess cane crushed in 1949-50 (Mds.)	Amount of cess refunded at to rate of $-\frac{1}{3}$ - be md on excess the crush per		
20. Sasamusa ...	61,682 $\frac{1}{2}$	11,565	7	6
21. New Savan ...	5,56,060 $\frac{1}{4}$	1,04,261	4	9
22. Sugauli ...	6,59,474 $\frac{1}{2}$	1,23,651	7	6

## STATE AID TO RESEARCH NOT ADEQUATE

From the very beginning, sugarcane research in India has been financed by both the Provincial and Central Governments. The Central Government have been earmarking some portion of the excise duty for sugarcane research and development. Formerly, the Imperial (now Indian) Council of Agricultural Research was the recipient of this sum which it used to distribute among the various research stations set up by it all over the country. Besides this regular grant, the Central Government used to make additional research grants from time to time on an *ad hoc* basis. The Indian Central Sugarcane Committee is now responsible for the proper utilization of such grants by the Central Government. Until 1947, the Committee was receiving a contribution of 1 anna per cwt. of sugar collected by the Government of India by way of excise duty. This was found to be inadequate, and in February, 1947, the Tariff Board recommended that the grant should be increased from 1 anna to 4 annas per cwt. of sugar with a view to helping the Committee for financing cane research and development. This recommendation was accepted by Government, and, accordingly, the Committee received a grant of 4 annas per cwt. from the excise revenue. But we have recently been informed that this has been once again reduced to 1 anna. The total grant for research and development made to the Committee during 1948-49 was about Rs. 12,50,000. Besides this annual grant, the Central Government have also sanctioned a special grant of Rs. 125 lakhs. Of this, a sum of Rs. 50 lakhs has been set aside for the erection of a suitable building at Lucknow for the Institute of Sugar Technology, which will be transferred from Kanpur and the balance of Rs. 75 lakhs has been allocated to the provinces for carrying out a five year programme of development commencing from 1948-49. The details of this programme are given below :

S.N.	States	Amounts allocated (in Rs.)		
		Total	By the I. C. S. C.	By the Provincial Governments
1.	United Provinces	1,16,45,000	30,00,000	86,45,000
2.	Bihar	24,14,490	13,00,000	12,14,490
3.	Bombay	11,20,558	5,62,500	5,58,058
4.	Madras	11,24,544	5,62,500	5,62,044
5.	Orissa	3,72,088	75,000	2,97,088
6.	Assam	80,260	37,500	42,760
7.	Central Provinces	75,000	37,500	37,500
*8.	Punjab (before partition)	18,74,600	9,37,500	9,37,100
*9.	Bengal (before partition)	19,61,018	9,37,500	10,23,518
†10.	N. W. F. P. (before partition)	1,51,800	1,50,000	1,800
Total		2,08,19,358	75,00,000	1,33,19,358

- \* As a result of partition the schemes submitted by undivided Punjab and Bengal have not been accepted and new schemes submitted respectively by the Governments of East Punjab and West Bengal have been receiving the attention of the Indian Central Sugarcane Committee. According to these new schemes, the claims of these two Governments for launching their five-year Development Schemes are :—

East Punjab—Rs. 9,37,500

West Bengal—Rs. 31,17,353

- † As the whole of the N. W. F. P. has now come under the Pakistan Government the allocation of Rs. 1,50,000 to this Province has been cancelled and this amount has been kept in reserve for the present.

From the figures given above, it will be seen that the Central grant of Rs. 75 lakhs is supplemented by Provincial grants to the extent of Rs. 1,33 lakhs, the total grant being 2,08 lakhs. Thus, the average annual expenditure on the development programme will be about Rs. 42 lakhs. It has been represented to us that the amount made available to the Indian Central Sugarcane Committee by the Central Government is insufficient for its needs, particularly because there is still a large scope for improving the yield and quality of cane through intensive research and development, which will require larger funds. While we agree that larger funds should be made available to the Committee for this purpose, we feel that the Provincial Governments should contribute much larger sums from the collections of cane cess than they have hitherto done, because the benefit of research and development will be mostly derived by the provinces. In this connection, it may be pointed out that during the last 11 years, the U. P. Government collected Rs. 10,78 lakhs from cane cess and spent only Rs. 1,72 lakhs for cane development work: similarly, the Bihar Government collected Rs. 2,97 lakhs and spent only Rs. 1,45 lakhs for such work. Taking the latest year, i.e., 1948-49, we find that the estimate of cess collection in U. P. is Rs. 3,12 lakhs and the estimate of expenditure only Rs. 37 lakhs. Similarly, the estimate of collection in Bihar for 1949-50 is Rs. 70 lakhs whereas the proposed expenditure is only Rs. 13 lakhs. Judging by these figures of collection and expenditure of cane cess on cane development, we consider that the Provincial Governments can and should contribute larger amounts for development work in their own areas. If, however, the Indian Central Sugarcane Committee can make out a case for larger grants from the Centre, the Central Government should favourably review the position, and, if necessary, increase that grant from the Central excise.\*

\* Vide Tariff Board Report of 1950

## **Chapter XVIII**

### **GOVERNMENT POLICY AND NOTIFICATIONS**

#### **SUGAR POLICY OF THE GOVT. OF INDIA DURING 1950-51**

Government of India after reconsidering the policy regarding sugar and gur for the season 1950-51 came to the conclusion that in the present circumstances when adequate imports were not possible the policy of decontrol, which has been put forward in some quarters was likely to lead to hoarding and profiteering on a large scale, smuggling across the frontiers and grave handicaps to a very considerable number of consumers as happened in 1949. The only alternative open, therefore, is to continue control but operate it in a manner which will give the advantage of decontrol as far as possible. This will enable the Government to maintain grip over the situation. It was, therefore, decided :—

- (a) not to proceed with the licensing of kolhus, and to allow gur to be manufactured freely;
  - (b) to revise the prices fixed for gur, sugarcane and sugar so as to provide adequate incentive for further sugar production, having regard to the difference in the manufacturing cost of sugar factories in different regions;
  - (c) to ensure regulated distribution of sugar out of the minimum quantity of sugar procured from the factories leaving surplus production to a free market.
2. As a result, no restrictions were to be imposed on the manufacture of gur by way of licensing of kolhus or gur plants. A similar policy was to be followed in the case of khandsari plants.
  3. It was decided to raise the ceiling price of gur from Rs. 18/- to Rs. 19/- per maund for surplus States and to fit the ceiling price in deficit States between Rs. 20/- to Rs. 23/- per maund according to local circumstances. The State Governments may devise suitable means to ensure as far as practicable that the producers of gur get an adequate price within the ceiling fixed.
  4. The minimum price of cane has been raised by annas -/2/- per maund to Rs. 1/12/- per maund in Uttar Pradesh and Bihar, corresponding increases have also been allowed in case of other States. This was done to maintain parity with increased gur price and to encourage supply of cane to sugar factories.
  5. As a consequence of increasing the price of cane, the all India basic price of sugar was raised from Rs. 28-8-0 to Rs. 29-12-0 per maund. Ex-factory sugar prices were fixed for different areas after making necessary allowance for the varying manufacturing costs, local taxes, difference in yields and crushing seasons, and it was not proposed to allow any 'freight-advantage' to any factory as in previous years. The revised price was applied to all sugar produced in the 1950-51 season. The revised sugar prices operated only in respect of quantities procured by Government from the factories, ceiling for which was fixed at 10 lakh tons for the country. Each factory was at liberty to dispose of its production in excess of the basic quota plus 7 per cent



in a free market. There was no restrictions on the price or distribution of such sugar. Ration card holders will be entitled to purchase the rationed quantity of sugar at controlled prices but they will be at liberty to buy sugar in the free market as well to supplement their needs. In view of this policy there will be no statutory rationing, but sugar will continue to be distributed on the present scales through ration shops on an informal basis. The existence of a free market implies that there will be no intra-State or inter-State movement bans on sugar.

The allocation of factory stocks to the various State Governments will continue to be made as before. The state Governments should pool together sugar received at different prices and issue it to the public at a fixed rate on a no-profit no-loss basis. The State Governments may add an administrative charge of not more than annas -/4/- per maund to the price.

6. The ceiling price of Khandsari was fixed at Rs. 29/- per maund in surplus districts of Uttar Pradesh. In other areas the local wholesale and retail prices will be fixed after adding such charges in respect of transport, handling, merchandising costs, etc., as have been approved for fixation of price for crystal sugar. In order that the controlled price be effective, similar action may be taken regarding freezing and distribution of khandsari as is suggested in the case of gur.

#### **GUR POLICY OF THE GOVERNMENT OF INDIA DURING 1950-51**

The ceiling prices of gur fixed for the various States are the absolute maximum inclusive of quality differentials and merchandising, packing and all incidental charges and trade margins. The ceilings fixed for deficit areas also include the cost of transport from the supplying areas. For all practical purposes the ceiling price should, therefore, be considered as the maximum retail price for the best quality of gur in the farthest corner of the area concerned, and the implication of the price Notification is that no gur should be sold or purchased above the ceiling price anywhere in the State. The price differentials for different qualities and wholesale and retail transactions are intended to be adjusted by the trade itself.

2. It may be noted that it is not the policy of the Government of India to impose any detailed control over the marketing of different qualities of gur at various stages. It is not considered desirable to do so as there are no commonly recognised standard grades for different qualities of gur, and also as the costs of distribution of Gur, of its transport and the wholesale and the retail margins vary from market to market. Price fixation for different qualities of gur and for the wholesale and retail stages would inevitably mean district to district control which is impracticable. It will only open out fresh avenues of corruption and necessitate expansion of administrative machinery.

It will be necessary to ensure that the recent increases allowed in the prices of Gur does not all go to the trade, and the benefit of it is passed on to the producer as well. The State Governments may, therefore, devise suitable means by which it will be ensured, as far as practicable, that the producers of gur get adequate prices within the ceilings fixed. One way of achieving this end might be for the State Governments to give an indication of the prices which they consider to be fair within the ceiling for the producer, not by statutory fixation of price but by means of a press note and informal contact with the traders and producers. If preferred, the floor

and the ceiling prices, which are considered fair to the producers for different qualities of gur within the overall ceiling fixed by the Government of India may also be indicated. If the State Governments find that due to free trade the expectations of the Governments are not being fulfilled, they may, by resort to freezing action, make these prices effective. Distribution of the frozen stocks can be arranged at controlled prices either through the ration shops or the co-operatives.

3. The Government of India's decision not to proceed with the licensing of kolhus and to raise the ceiling prices of gur seems to have created a feeling of relaxation of gur control in the trade circles. It has been found from experience that there are two effective ways of maintaining ceiling prices:

- (a) freezing of stocks at control prices,
- (b) arrest of big scale purchasers at black market prices.

It is, therefore, essential that large-scale freezing action should be taken in all areas of important collecting points, markets, road junctions, railway stations, etc., to ensure that prices of gur remain within the ceilings fixed. Trucks or railway wagons seized may be allowed to proceed to their destinations, but the District Magistrates concerned should be furnished with relevant particulars so that they may arrange to take over and distribute such gur at controlled rates.

It is clear that the stringent steps being taken in the surplus State to make the controlled prices of gur effective cannot lead to useful results unless their action is supplemented by similar action in deficit areas so that the merchants from such areas may have no temptation to offer higher prices. It is thus necessary that effective action to enforce the ceiling prices should be taken both in surplus and deficit areas simultaneously. In the deficit States arrangements might be made by the District Magistrates to keep themselves informed of the stocks which the traders are importing within their jurisdiction from outside.

4. As regards movement ban, the intention of the Government of India was to resort to it only if the other measures of gur control failed to bring down the gur prices to the desired levels, for movement ban on surplus States is found to raise the black market prices in deficit areas. Freezing action taken in certain States during the last month has, as a matter of fact, had the desired effect in bringing down prices to a great extent. It is therefore, not considered essential at present to impose any inter-State bans. A close watch should, however, be kept on the situation.

In the result, the Government of India's policy as regards gur control is not to hamper free trade within the country but to make the prices effective by resort to judicious and frequent use of powers of freezing and arrest of big scale dealers purchasing or selling gur at black market prices. Under this policy no licensing of traders and no issue of any export or import permits or any detailed control would be necessary.

#### **POLICY OF FREE SUGAR SALES BY FACTORIES DURING 1950-51**

With a view to giving further incentive to production the Government of India announced that sugar factories were to be allowed to sell in the free market any production in excess of

a basic quota to be fixed by the Agriculture Ministry taking into consideration the production during the two years—1948-49 and 1949-50.

The principles on which such free market sale were allowed : re as follows :—

(a) Firstly, Government must secure a production of 10 lakh tons for controlled distribution beyond which only free sales will be allowed to the factories, (b) secondly, incentive should be provided to factories in areas where there is scope for more production, and (c) thirdly, factories should be given a fair chance in all regions to maximise their production and qualify for the concession of free sale.

It was not possible to take the year of lower production for every factory as the basis, as the total production which the Government was to secure would amount to less than 10 lakh tons. In the case of some factories, such as those in West U. P., production was lower in 1949-50 and higher in 1948-49, for others in Bihar and East U. P., it was vice versa. Taking the year of higher production it would yield more than 10 lakh tons. Neither of the two years' production would, therefore, provide a suitable basis.

The question was considered at a meeting of the Committee of the Indian Sugar Mills Association at Calcutta held on January 3, 1951. The Association has not been able to produce any agreed solution and has decided that the matter should be left to the Government. The Association, however, agreed on behalf of the Industry that whatever be the formula adopted, if the allotted quota in the aggregate fell short of 10 lakh tons, the short fall would be made good by the Mills producing the excess.

### BASIS OF FREE SALES

On a careful consideration of all aspects of the case it was decided to allow free sales to the factories on the following basis :—

(i) The basic quota for the factories in India was the individual average of their production for the years 1948-49 and 1949-50 plus 7 per cent on such average:

Provided that the basic quota for the factories referred to in (ii) below was the individual production for the year 1948-49 or 1949-50, whichever is less plus 7 per cent.

(ii) The factories entitled to the basic quota under the proviso aforementioned were :—

(a) Such factories in West U. P., and East Punjab as have started crushing not later than the 15th November, 1950, and such factories in East U. P. and Bihar as have started crushing not later than the 22nd November, 1950, and

(b) such factories in India the production of which exceeds the basic quota of the average of two years' production plus 7 per cent as mentioned above.

(iii) The Government was to take over the production of all factories upto the limit of their basic quota as mentioned in clauses (i) and (ii).

(iv) The deficit, if any, for making up that total of 10 lakh tons was to be recovered from all factories to which the proviso would apply in proportion to their individual average production for the two years 1948-49 and 1949-50.

(v) No factory could start free sale without obtaining the prior permission of the Government and no such permission was to be granted until the Government are reasonably secure of the 10 lakh tons for controlled distribution.

(vi) There were a few exceptions to the general rule, e.g., a factory may not have worked during one of the two or both the years 1948-49 and 1949-50, or the working was not normal during these years. In such cases the basic quota will be fixed on an *ad hoc* basis and communicated to the factory concerned.

The Government withdrew the concession of Rs. 2/6 per maund allowed to certain factories on their production over the period of a month, which had started crushing early in the season.

## GOVERNMENT NOTIFICATIONS

### Exemption From Excise Duty on Excess Production

Notification No. 43/15-CX/49 dated the 24th Jan., 1950.

The Government of India have decided that for the purpose of regulating the exemption from excise duty authorized in the Ministry's Notification No. 37-C. Exc., dated the 26th November, 1949, the following rulings should be applied in calculating the production of each of the two seasons—1948-49 and 1949-50.

- (1) Finished sugar produced during the season from damaged or defective sugar or unfinished materials, carried over from the past season, should be treated as part of the production of the season.
- (2) Damaged, defective or unfinished sugar left over in the factory at the end of the season (i.e., on 30th Sept. of the year) should be wholly excluded in computing the production of the season.
- (3) Finished sugar obtained during the season from the processing of defective sugar or the materials received into the factory from outside the factory (under rules 86 to 88 of the Central Excise Rules, 1944) should be similarly excluded.

### RETAIL PRICE OF CUBE SUGAR IN 1950

No. SV 101(1)/50. In exercise of the powers conferred by Section 3 of the Essential Supplies (Temporary powers) Act, 1946, (XXIV of 1946), the Central Government is pleased to direct that the retail price of Cube Sugar throughout the Indian Dominion shall not exceed Re. -/11/- per lb. in one lb. packing and Re. -/9/9 per lb. when sold in 5 lbs. packing.

### MARGIN OF WHOLESALERS AND RETAILERS IN THE SUGAR PRICE

Notification No. SV-101(1)/50 dated 16th May, 1950

On a review of the position the Government of India have decided that the wholesaler's margin of -/12/- annas should be raised to a maximum of rupee one per maund, and that of retailer from -/8/- to -/10/- per maund.

The State Governments may fix the margins within the maximum allowed from such date as may be considered suitable by them. There will be no objection to fixing lower margins where circumstances warrant such a course, but no higher margins should be allowed in any case without obtaining the prior approval of the Govt. of India.

## SUGAR AND GUR CONTROL ORDER, 1950

Notification dated the 7th October, 1950

S. R. O. 735—In exercise of the powers conferred by Section 3 of the Essential Supplies (Temporary Powers) Act, 1946 (XXIV of 1946), the Central Government is pleased to make the following Order :—

1. *Short Title and Commencement*—(1) This Order may be called the Sugar and Gur Control Order, 1950.

(2) It extends to the whole of India except the State of Jammu and Kashmir.

(3) It shall come into force at once.

2. In this Order unless the context otherwise requires :—

(a) “Dealer” means a person carrying on the business of purchasing, selling or distributing sugar or gur or both.

(b) “Ex-factory price” means the price of sugar inclusive of excise duty, packed in accordance with the usual market practice and loaded at the buyer’s option on buyer’s carts, lorries or other means of transport, or into railway wagons at the railway station or siding generally used by the producer, and includes all incidental charges which are on account of the ex-factory seller.

(c) “Gur” means the article commonly known as Gur, Gul, Jaggery, Palmyra jaggary, shakkar and rab, and includes raw sugar and uncrystallised sugar in any other form comprising of original and convertible molasses and other impurities, inherent or foreign prepared by boiling cane or palmyra juice.

(d) “Producer” means a person carrying on the business of manufacturing sugar or gur or both.

(e) “Sugar” means :—

(i) any form of sugar containing more than 90 percent of sucrose including Khandsari sugar sugarcandy and Bura sugar; and

(ii) any sugar of crystalline structure.

3. *Power to Fix minimum price for Sugarcane*—(1) The Central Government may, after consultation with such authorities, bodies or associations as it may deem fit, by notification in the Official Gazette, from time to time, fix in respect of any area the minimum price to be paid by a producer or his agent for sugarcane purchased by him in that area.

(2) No person shall sell or agree to sell sugarcane to a producer and no producer shall purchase or agree to purchase sugarcane at a price lower than that notified under this clause.

4. *Power to regulate movement of Sugarcane and production and movement of Gur and Sugar*—The Central Government may by order published in the Official Gazette :—

(a) prohibit or restrict the export of sugarcane from any area,

(b) direct that no gur or sugar shall be manufactured from sugarcane except under and in accordance with the conditions specified in a licence issued in this behalf.

(c) prohibit or restrict the despatch of gur or sugar from any State or any area therein.

5. The Central Government may by general or special order direct that no person shall transport or offer or accept for transport, whether by rail, road or water, all or any specified type or grade of sugar except under :—

(a) a general or special permit issued in this behalf,

(b) a Military Credit Note.

Provided that nothing in this clause shall apply to the transport of sugar not exceeding five seers as part of the personal luggage of a bona fide traveller.

6. *Power to fix sugar and gur price*—(1) The Central Government may, from time to time, by notification in the Official Gazette fix the price or the maximum price at which any sugar or gur may be sold or delivered, and different prices may be fixed for different areas or different types or grades of sugar or gur.

(2) Where the price or the maximum price has been so fixed, no person shall sell or purchase or agree to sell or purchase any sugar or gur at a price in excess of that fixed under sub-Clause (1).

Provided that the price at which sugar may be sold for delivery otherwise than at ex-factory price shall not exceed the price or the maximum price, as the case may be, fixed under sub-Clause (1) for sale at ex-factory price plus such charges, in respect of transport to or in specified areas and other incidental charges as are approved by the Central Government.

(7) *Power to allot quotas of sugar and gur*—The Central Government may from time to time by order,

(i) allot quotas of sugar or gur to any specified State or area,

(ii) issue directions to any producer or dealer to supply such type or grade, in such quantities to such areas or markets or to such persons or organisations and at such price as may be specified in the Order.

Provided that where the price or maximum price of any sugar or gur has been fixed under sub-Clause (1) of Clause 6 the Central Government shall in respect of such sugar or gur specify in the order the price or the maximum price, as fixed.

8. *Power to issue directions to producers and dealers*—The Central Government may, from time to time, by general or special order issue to any producer or dealer or any class of producers or dealers such directions regarding the production, maintenance of stocks, sale, price, grading, packing, marking, weighment, disposal, delivery and distribution of sugar or gur as it may deem fit.

9. Any Officer empowered in this behalf by the Central Government may :

(a) Direct any producer or dealer to maintain such records as he may specify;

(b) direct any producer or dealer to furnish such information as he may require;

(c) inspect or cause to be inspected any books or other documents belonging to or under the control of a producer or a dealer;

(d) enter and search or authorise any person to enter and search any premises of a producer or a dealer.

10. Every producer, dealer or other person to whom any order or direction is issued under any powers conferred by or under this order shall comply with such order or direction.

11. The Central Government may, by notification in the official gazette, direct that all or any powers conferred upon it by this order shall, subject to such restrictions, exceptions and conditions if any, as may be specified in the direction, be exercisable also by:—

(a) any officer or authority of the Central Government.

(b) a State Government or any officer or authority of a State Government.

12. (1) The following Orders are hereby repealed:—

(a) The Sugar Stocks (Control) Order, 1949 and

(b) any Order made by a State Government or other authority regulating or prohibiting the production, supply and distribution of sugar or gur and trade and commerce therein which is inconsistent with the provisions of this order.

(2) An Order made by any authority which is in force immediately before the commencement of this Order and which is consistent with this Order, shall continue in force and all appointments made, prices fixed, licences and permits granted, and directions issued under any such Order and in force immediately before such commencement shall likewise continue in force and be deemed to be made, fixed, granted, or issued in pursuance of this Order.

### ADDITIONAL PRICE OF RS. 2/6/- FOR EXCESS PRODUCTION

Notification No. SV-101(1)/50-51 dated the 28th October, 1950

The Government of India have announced their decision to maintain the *status-quo* with regard to the sugarcane and sugar prices, and the ex-factory price of Rs. 28-8-0 per maund for Indian Sugar Standards grade E27 fixed last year will, therefore, continue to be in force this year also. Government have also decided to offer a somewhat higher price to the sugar factories in West U. P. and Punjab for their production upto 15th December on a quantity not exceeding one lakh tons. Accordingly an additional price of Rs. 2/6/- per maund will be given to the factories in these areas on their production upto 15th December, 1950 during the ensuing season. The payment of the additional price shall be subject to the following conditions:—

1. That the factory concerned starts regular crushing not later than 15th November, 1950, and

2. That the sugar produced by such factory upto 15th December is more than that produced in the corresponding period last year.

The additional price of Rs. 2/6/- per maund will be paid as a subsidy by the Central Government direct on receipt of information in regard to the quantity produced during the said period duly certified by the Excise authorities. Factories will, therefore, continue to bill for the sugar allotted by the Central Government to State Governments and other allottees at the price of Rs. 28-8-0 per maund with usual price differences due to quality.

### IMPORT DUTY ON SUGAR IN 1949-50 AND 1950-51

According to a clause in the Finance Bill, 1950, the then existing protective duty on sugar which lapsed on 31st March, 1950 was converted into a Revenue Duty of the same amount from 1st April, 1950. The formula for calculation of the import duty till 1st April, 1950 was the rate at which excise duty (Rs. 3-12-0 per cwt.) was levied on Indian sugar plus Rs. 6-12-0 per cwt plus one-fifth of the total duty. This worked out to Rs. 12-9-7  $\frac{1}{5}$  per cwt. or Rs. 9-4-0 per maund. (vide Table No. 107 on page 186).

According to the Budget proposals for 1951-52, the total import duty on sugar was increased to Rs. 13-2-0 per cwt. or Rs. 9-10-3 per maund, the revenue surcharge on it being increased by 5 per cent more from 20 per cent to 25 per cent on the import duty with effect from 1st March, 1951. This included the Revenue duty Rs. 6-12-0 per cwt. plus 25 per cent surcharge on it in addition to equivalent Excise duty Rs. 3-12-0 per cwt. plus 25 per cent surcharge on it.

### SALES TAX IN U. P. AND BIHAR, 1949-50 AND 1950-51

With effect from 1st April, 1949, Sales Tax is levied in U. P. at the rate of Re. 0.0.2 (two pies) per rupee, as against 3 pies per rupee prior to that date. It is a single point tax and no rebate in the tax is allowed in respect of exports. Till 1st April, 1949, the tax was levied at 3 pies per rupee, at a single point, with rebate of one-half of the tax on such quantities as were actually exported outside U. P. to other States in India. In Bihar the sales tax was levied on all exports of sugar at the rate of 3 pies per rupee. An amendment to the Bihar Sales Tax Act, 1947, is proposed in the Bihar Govt. Finance Bill, 1951, in the middle of February, 1951. For the purposes of sales tax, if the amendment is passed, all goods delivered in Bihar for consumption will be deemed to have been sold in Bihar, and will be liable to sales tax in Bihar. The term "registered dealer" is amended to mean "a dealer liable to pay tax under this Act."

### EXPORT OF MOLASSES BANNED IN 1949-50

There was a complete ban on the export of Indian molasses outside the country. Complaints of difficulties caused to mills in Bihar, U. P. and other States owing to accumulated stocks of molasses were current during the year. The price for molasses ruling in Pakistan and other neighbouring countries was Rs. 7 per maund and it was estimated that, if the export was permitted, it would have helped the Government in securing foreign exchange to the tune of Rs. 15 to 20 lakhs. The export of molasses from Bombay and Madras to U. S. A. is reported to be under consideration of the Government of India still.

### IMPORT DUTY ON SUGAR MACHINERY, 1949-50

The Import duty on sugar machinery was increased from 5 per cent to 10 per cent. Sugar machinery items were separately classified. The import duty in 1948-49 was 5 per cent being reduced from 10 per cent in 1947-48 on October 23, 1948.

### ALLOWANCE FOR TRANSPORT CHARGES OF SUGARCANE IN U. P.

The deduction for the cost of transport to factories using their own means of transport in U. P. was 3 pies per mile per maund subject to maximum of 3 annas per maund from the



price of cane purchased at a purchasing centre. The industry in the U. P. had, however, demanded in 1950 that the maximum limit of deduction should be raised to 4 annas per maund of cane and that the maximum limit per maund per mile should be increased from the present figures of 3 pies to 4 pies.

**SALES TAX CONTINUANCE ORDER, 1950, EFFECTIVE FROM APRIL,  
1950 TILL 31st MARCH, 1951**

According to this order sales tax continued to be lawfully levied on sale or purchase of goods as was levied by the Government of any State immediately before the commencement of the Constitution until the 31st day of March, 1951 from 1st April, 1950, notwithstanding that the imposition of such a tax was contrary to the provisions of Clause (2) of Article 286 of the said Constitution.

**EXPORT OF SUGAR EXEMPTED FROM SALES TAX IN U. P.!**

As a result of this order and subsequent Order of the Under Secretary to the Govt. of U. P., exports of sugar outside the U. P. State are exempt from sales tax in U. P. provided the export is meant for consumption in the State importing it.

**SALE BY PERMITS ONLY**

Notification

S. R. O. 737, dated -7-10-50—In exercise of the powers conferred by clause 8 of the Sugar and Gur Control Order, 1950, the Central Government is pleased to direct that no producer who produces sugar by the Vacuum pan process shall sell or otherwise dispose of such sugar except under and in accordance with a permit issued in writing by the Central Government or any officer authorised by it in that behalf.

**SUGARCANE PRICE DURING 1950-51**

Notification

S. R. O. 1001, dated 6-12-50—In exercise of the powers conferred by clause 3 of the Sugar and Gur Control Order, 1950 and in supersession of the Ministry of Agriculture Notification S. R. O. 792-B dated the 19th October, 1950 and S. R. O. 936 dated the 21st November, 1950, the Central Government is pleased to fix the price specified in Column 2 of the Schedule hereto annexed as the minimum price to be paid by a producer of sugar by vacuum pan process or his agent for sugarcane purchased by him on or after 1st November, 1950 during 1950-51 crushing season in the State specified in the corresponding entry in Column 1 of the said schedule.

## THE SCHEDULE

Name of the State							Minimum price per md.		
							Rs. as. p.		
Bihar	...	...	...	...	...	...	...	1	12 0
Bombay	...	...	...	...	...	...	...	1	12 0
Punjab	...	...	...	...	...	...	...	1	12 0
Uttar Pradesh	...	...	...	...	...	...	...	1	12 0
West Bengal	...	...	...	...	...	...	...	1	12 0
Hyderabad	...	...	...	...	...	...	...	1	12 0
Madhya Bharat	...	...	...	...	...	...	...	1	11 0
Mysore	...	...	...	...	...	...	...	1	12 0
Rajasthan:									
(i) Area from which sugarcane is drawn by Bikaner Industrial Corporation Ltd.,									
Sri Ganganagar	...	...	...	...	...	...	...	1	9 6
(ii) Area from which sugarcane is drawn by Mewar Sugar Mills, Ltd., Bhupalsagar									
								1	12 0

Provided that the Central Government may, as and where considered necessary, allow suitable rebate in the prescribed price to cover costs of transporting cane from producing areas by road/rail to a factory.

## CANE CESS IN UTTAR PRADESH DURING 1950-51

Government of Uttar Pradesh Industries (C) Deptt.

No. 3043-S/XVIII-C-175-1950, Dated November 29, 1950

## Notification Miscellaneous

In exercise of the powers conferred by sub-section (2) of Section 29 of the U. P. Sugar Factories Control Act, 1938, (U. P. Act 1 of 1938), the Governor is pleased to declare that, during the 1950-51 crushing season, a cess at a rate of three annas per maund shall be levied on the entry of all sugarcane into the local areas comprised in the factories mentioned in the Schedule, for consumption, use or sale therein.

## CESS IN BIHAR DURING 1950-51

Government of Bihar, Development Deptt.

Notification, Patna, the 29th December, 1950

No. IS-101/50-D. 11445.—In exercise of the powers conferred by Sub-Section (2) of Section 29 of the Bihar Sugar Factories Control Act, 1937 (Bihar Act VII of 1937) as amended by the Bihar Sugar Factories Control (Amendment) Act, 1950 (Bihar Act VI of 1950) and in supersession of the orders published with Notification No. 11/404 D of the 10th December, 1949 of the Govt. of Bihar in the Development Department, the Governor of Bihar is pleased to declare that, with effect from the 1st November, 1950, a cess of thirty six pies per maund shall be imposed on all sugarcane entering the local areas comprised in the following factories for consumption, use or sale therein.

## SALE PERMITS TO BE ISSUED BY CENTRAL GOVT.

### Notification

S. R. O. 1138, the 28th December, 1950—In exercise of the powers conferred by clause 3 of the Sugar and Gur Control Order, 1950, the Central Government is pleased to direct that with effect from the date of this Notification no person shall transport or offer or accept for transport, whether by rail, road or water, any sugar produced by a vacuum pan process, from any place situated in one State to any place situated in another State, except under :—

(a) a special permit issued by the Central Govt. or any other person authorised in this behalf by it.

(b) a Military Credit Note.

Provided that nothing in this Notification shall apply to the transport of any such sugar not exceeding one seer as part of the personal luggage of a *bonafide* traveller.

SV. 105(4-3/50-51).

### PRICES OF SUGAR DURING 1950 51

Notification, dated the 6th December, 1950

S. R. O. 1002—In exercise of the powers conferred by Clause 6 of the Sugar & Gur Control Order, 1950 the Central Govt. is pleased to fix the ex-factory price specified in column 2 of Schedule I annexed hereto for ISS E-27 grade of crystal sugar produced on or after 1st Nov. 1950-51 season by vacuum pan sugar factories in areas specified in the corresponding entry in column 1 of the said schedule.

Provided :

(i) that the price differentials for various grades of crystal sugar higher or lower than ISS 27-E grade shall be as shown in Schedule II hereto annexed. (See Table No. 69).

(ii) that the price differentials for various grades of refined sugar based on the ex-factory price of ISS E-27 grade of crystal sugar, shall be as shown in Schedule III hereto annexed (See Table No. 69).

(iii) that the price differentials for various grades of crushed sugar based on the ex-factory price of ISS E-27 grade of crystal sugar shall be as shown in Schedule IV hereto annexed. (See Table No. 69).

### SCHEDULE I

Area								Ex-factory price per md. of 82-2/7 lbs.
I								Rs. as. p.
Bihar-North	...	...	...	...	...	...	...	31 0 0
Bihar-South	...	...	...	...	...	...	...	33 0 0
Bombay	...	...	...	...	...	...	...	29 12 0
Punjab	...	...	...	...	...	...	...	30 8 0
Uttar Pradesh-West	...	...	...	...	...	...	...	30 8 0
Uttar Pradesh-East	...	...	...	...	...	...	...	32 0 0
West Bengal	...	...	...	...	...	...	...	30 8 0
Hyderabad	...	...	...	...	...	...	...	29 12 0
Madhya Bharat	...	...	...	...	...	...	...	31 8 0
Mysore	...	...	...	...	...	...	...	29 12 0
Rajasthan	...	...	...	...	...	...	...	33 0 0

### FACTORIES INCLUDED IN WEST U. P.

Hargaon, Gola, Pilibhit, Kesar, Neoli, Aira, Gokulnagar, Kashipur, Lord Krishna, Modinagar, Rohanakalan, Deoband, Mansurpur, Mawana, Khatauli, Daurala, Jaswant, Mohiuddinpur, Sakhotitanda, Hardoi, Maholi, Bareilly, Rosi, Bijnor, Seohara, Dhampur, Lhaksar, Amroha, Raja-ka-Sahaspur, Simbhaoli, Raza, Buland, Shamli, Doiwala.

### FACTORIES INCLUDED IN EAST U. P.

Seorahi, Mairwa, Baitalpur, Gauri Bazar, Deoria, Saraya, Diamond, Ghughli, Siswabazar, Pipraich, Captainganj, Khadda, Chhitauni, Ramkola, Maheshwari Khetan, Padrauna, Kathkuiyan, Ganesh, Burhwal, Munderwa, Basti, Walterganj, Babhnan, Nawabganj, Balrampur, Tulsipur, Jarwal Road, Khalilabad, Barabanki, Motinagar, Biswan, Lakshmiganj, Shahganj.

### NORTH BIHAR

Lohat, Hasanpur Road, Sakri, Motihari, Majhulia, Chanpatia, Lauriya, Righa, Bagaha, Narkatiaganj, Harinagar, Ryam, Sugauli, Samastipur, Motipur Barachakia, Siwan, New Savan, Hathua, Sitalpur, Sidhwalia, Marhowrah, Sasamusa, Vishnu, Pachrukhi.

### SOUTH BIHAR

Gaya, Bihta, Rohtas, Buxur, Mohini.

### NO FREIGHT ADVANTAGE

SV. 101(1)/50 dated 6th January, 1951

It was brought to the notice of the Government of India that certain sugar factories are charging freight advantage and additional excise duty of -/9/- per maund, over and above the ex-factory price fixed vide this Ministry Notification No. SV-101(1)/50 dated 29th November, 1949. Such action on the part of the factories was a clear breach of the provisions of Section 5 of the Sugar Stock (Control) Order, 1949. The prices notified covered all the charges and included incidence of -/9/- per maund on account of additional excise duty.

All the factories were asked to note clearly that unless specifically permitted by the Government of India they were not authorised to add to the notified prices anything on account of freight advantage or additional Excise Duty. Factories which have hitherto been doing so, should immediately refund the amount charged in excess to the party concerned under advice to this Ministry.

### RETAIL PRICE OF CUBE-SUGAR DURING 1951

In exercise of the powers conferred by Section 3 of the Essential Supplies (Temporary Powers) Act, 1946 (XXIV of 1946), and in supersession of Ministry of Agriculture Notification No. SV-101(1)/50 dated the 25th January, 1950, the Central Government is pleased to direct that the retail price of cube sugar throughout India except the State of Jammu and Kashmir shall not exceed Re. -/11/6 per lb. in one lb. packing and Re. -/10/3 per lb. when sold in 5 lbs. packing.

## WHOLESALE DEALER'S SELLING PRICE AND INCIDENT CHARGES

(1) When a dealer sells sugar wholesale (that is, in units of not less than a bag which is usually of 2 maunds and 30 seers), he shall charge a price which shall comprise the items named below :—

- (i) The ex-factory price;
- (ii) The railway freight actually paid by him;
- (iii) The octroi and other local taxes actually paid by him; and
- (iv) The incidental charges (comprising expenditure on local cartage from railway station to godown, godown charges, insurance, interest, establishment and shortage in weight) actually incurred by him and profit subject to the maximum of *twelve annas per maund*.

Provided that (a) no wholesale dealer shall be entitled to any profit if he has been paid any commission, brokerage, rebate or other form of remuneration by the seller, and (b) the price charged to the retail dealer shall not exceed that fixed by the competent local authority for wholesale dealers, in the area in which the sugar is consumed and subject to the maximum shown against items (i) to (iv) above.

## RETAIL DEALER'S SELLING PRICE

(2) When a dealer sells sugar retail (that is, in units of less than a bag which is usually of 2 maunds of 30 seers) he shall charge a price which shall comprise the items shown under (1) above and maximum profit margin of -/8/- per maund. He shall, however, be entitled to retain the bag.

## NO IMPORT OF SUGAR DURING 1951-52

The Government of India had no intention of importing any sugar in 1951 except the unshipped quantity purchased in 1950, according to Mr. M. Thirumala Rao, Deputy Food Minister, in reply to Mr. R. K. Sidhwa in Parliament. The unshipped quantity amounted to 40,000 tons out of 60,000 tons purchased in 1950.

## CONTROLLED SUGAR PRICES IN BOMBAY STATE INCREASED

An announcement by the Government of Bombay stated that the retail price of sugar in the controlled markets, sold as a non-statutory ration, will be increased by 1 anna 8 pies per seer to 15 annas from 1st June, 1951. In explanation of this increase, it is stated that the Government has been subsidising imported sugar from profits made on indigenous sugar, but these profits are now used up and the Government has lately been losing heavily. Large quantities of imported sugar have been allotted to Bombay and, when the exemption from Customs duty was withdrawn on 12th January, foreign sugar became costlier than Indian; in addition the factory prices of Indian sugar were increased in November, 1950, making it impossible for the Government to continue the old selling rate.

## RETAIL PRICE OF SUGAR IN MADRAS INCREASED

It is understood that the retail price of sugar will go up shortly, from Re. 1-5-0 per viss at present to Re. 1-7-0. This is to off-set the disparity in prices between the Indian and the higher-priced imported sugar. It is expected that the increased price would be in force only till the end of the quarter ending June, 1951, after which the original price would be restored.

With regard to the proposal for the selling of sugar for one month at a time to card-holders, it is now learnt that the change will be introduced only after Government issue orders increasing the price of sugar.

## SUGAR IN FREE MARKET IN MADHYA PRADESH

No restrictions are to be imposed on either prices or distribution of such sugar as may be released by the Government of India from time to time for sale in the free market, state the Madhya Pradesh Government. The State Government will, however, simultaneously continue to receive supplies of Sugar from the Government of India and distribute it to holders of ration-cards according to the existing arrangements. Consumers will thus continue to get their quota of sugar as hitherto, and they may also augment their supplies from the free market. Dealers appointed by District Magistrate will have to sell only quota sugar at prices to be fixed by the District Magistrates and distribute it according to his directions. Such authorised dealers will not be allowed to deal in sugar obtained from the free market.

## PRICE AND MOVEMENT OF SUGAR RESTRICTIONS REMOVED IN BOMBAY

The existing restrictions on the price and movement of sugar within Bombay State have been removed.

Announcing this, a Bombay Government press note said that sugar allotted to the State will continue to be distributed through ration shops and rural distribution centres as at present at the quantum and price fixed by Government from time to time. It is not permissible for such shops or centres to acquire for sale sugar which has been released for sale in the free market.

No crystal, khandsari and bura sugar can be imported into, or exported from, Bombay State to any other State, except under a permit from the Government of India.

The monthly stock declarations of sugar, including khandsari, sugar-candy lissa sugar and bura sugar and batasas are no longer required to be submitted. The ban on production of khandsari sugar and batasas in Bombay State has also been removed.

## NEW SUGAR POLICY CROWNED WITH TREMENDOUS SUCCESS

With the record production of 11 lakh tons of sugar being reached, a tremendous success is claimed to have resulted from the new sugar policy framed last year, which was an innovation in that it was a new experiment in partial decontrol.

In a statement laid before Parliament on the release of sugar for free sale, the Food and Agriculture Minister, Shri K. M. Munshi explained details of the new policy and enumerated the results that have been achieved.

The extent to which the policy has succeeded could be seen from the following results:

- (1) the production of 11 lakh tons was by far the highest during the last 8 years;
- (2) the cane sowings have considerably increased this year leading to the prospect of a much higher sugarcane crop and more sugar production next year;
- (3) Government will have next year a carry-over of at least one lakh tons which was never the case during the last two years;
- (4) the price of sugar in the free market during recent months has appreciably come down; and
- (5) Government has not only gained in excess excise duty but will get a large slice of income-tax revenue from the free sales.

### FREE MARKET SALE

With a view to giving further incentive to production Government had decided early in the season that sugar factories will be allowed to sell in the free market any production in excess of the basic quota to be fixed by the Agriculture Ministry, the basic quota was to be fixed, taking into consideration the production during the two years 1948-49 and 1949-50 so that the Government could secure a production of ten lakh tons for controlled distribution.

It was found on examination that some factories had produced more in 1948-49 and others in 1949-50. After giving the Indian Sugar Mills Association, which represents all factories in India, every opportunity to produce an agreed formula, the Agriculture Ministry laid down the basis for fixing the basic quota of the various factories on February 3, 1951.

The basic quota for the factories in India was the individual average of their production for the year 1948-49 and 1949-50 plus 7 per cent on such average.

The Government would take over the production of all factories up to the limit of their basic quota.

No factory would start free sale without obtaining the prior permission of the Government and no such permission will be granted until the Government are reasonably secure of the 10 lakh tons for controlled distribution.

The basis adopted was intended to stimulate all factories to try to secure the maximum advantage of free sale by producing more sugar. This gave such a stimulus that up-to-date about 90 out of the 137 factories have qualified for the benefit of free sale.

As regards release of sugar for free sale, in the first week of March, '51, a number of factories exceeded their basic quota and it appeared that Government could be reasonably secure of the ten lakh tons for controlled distribution and it was felt that Government should go on releasing free-sale sugar to the factories from time to time in order to enable them to make a still greater effort by paying more for sugarcane. Release orders were issued from March

12, 1951. It was estimated that on the formula framed the basic quota of factories would give Government 9.3 lakh tons and the short fall to be recovered would be about 70,000 tons which would have to be contributed by the factories qualifying for free sale whose number was then estimated at about 80.

### **FREE SALE SUGAR QUOTA INCREASED**

Factories which produced more than their basic quota of sugar, were allowed half of their excess production for free sale.

Factories, which have been allowed, less than half of their excess production for free sale, will now be allowed a further quantity to make their free sale quota equal to half of the excess production. The position of factories, which have already been allowed under the existing formula more than half of their excess production will, of course, remain unaffected.

The question as to how these additional quantities should be released for free sale is under consideration. Meanwhile releases will be given to all factories which have produced in excess of 15 per cent over their basic quota up to the excess produced.

### **EXTRA SUGAR FOR FESTIVALS DURING 1951**

The Government of India have allotted a special quota of 25,450 tons of sugar to State Governments for distributing extra rations during important festivals during this year.

It has been left to the State Governments to make allocations between different festivals, according to their importance in each State.

## **SUGAR POLICY OF GOVERNMENT OF INDIA DURING 1951-52**

### **Selective Control of Sugar to continue-Modified Formula**

The Government of India's policy of selective control of sugar will continue during the new season, but with certain modifications.

Ninety-five per cent of the average production of each factory during the two years 1948-49 and 1949-50 will be fixed as the basic quota of the factory in the coming season.

Half of the production of each factory in excess of its basic quota will be allowed to be sold in the free market, and the other half, together with the basic quota, will be reserved for distribution at controlled prices.

Under this modified formula, the Government expect to secure at least ten lakh tons and the consumer will get a share of the extra production at controlled prices.

The basic quota of factories which did not have a normal crush during the two years 1948-49 and 1949-50 due to any reason, or which did not function during any of these years, or the crushing capacity of which has been increased during the past three years, will, however, be fixed on an *ad hoc* basis.

The Government will, whenever necessary, release up to five per cent of the monthly production of the factories with a view to maintaining continuity of supplies in the free market. The total quantity so released for free sale from a factory will, however, be adjusted against the free sale quota to which it may be entitled at the end of the working season.



*Cane Price*—The all-India minimum cane price will continue to be Re. 1/12/- per md. The system of fixing sugar prices on regional basis adopted this year will also continue.

The basic sugar price for E-27 grade will remain at Rs. 29/12/- per maund and slightly higher prices fixed for various regions will continue as during 1950-51 subject to minor adjustments to be announced shortly.

It has been decided to continue the ceiling prices fixed for gur and khandsari at the level of 1950-51 that is Rs. 19/- per maund for gur and Rs. 29/- per maund for khandsari in the surplus areas. Local adjustments in the price of gur will continue as during 1950-51.

The restrictions on inter-state movement of sugar to border states will also continue as at present, subject to any modifications which may become necessary if circumstances alter.

### **SUGAR POLICY "ONE-SIDED"**

#### **Bombay Merchants' Criticism**

The Bombay Sugar Merchants' Association characterised the Government of India's sugar policy for the 1951-52 season as "one-sided with rigid restrictions on the quota released for the free market."

The new year's sugar policy was regarded as the replica of the last year's policy in almost all respects, except in so far as it revised the basic quota of last year from 107 per cent to 95 per cent of the average production of each factory in excess of its basic quota which was allowed to be sold in the free market, whereas this year only half of such production would be allowed to be sold in the free market, while the other half together with the basic quota, will be reserved for distribution at controlled prices. This would mean that only one lakh tons of sugar, as against 1.27 lakh tons last year, would be available for the free market on the basis of the estimated sugar production of 11.5 lakh tons during the year 1951-52. For, the basic quota for the ensuing year is estimated at about 9,50,000 tons on the basis of 95 per cent of the average production of each factory during the two years, 1948-49 and 1949-50.

In view of this, it was pointed out, the new policy of selective control was not in conformity with the Government's original intention to revise it stage by stage.

However, the new policy would provide an incentive for increasing sugar production to those sugar manufactures also, who could not last year avail themselves of any advantage of sales in the free market as the basic quota had been fixed at 107 per cent which has now been revised downward by 12 per cent for the ensuing season. Manufacturers would be in a better position now to organise their production plans as the sugar policy has been announced much in advance of the season.

With only a limited quantity of sugar available for the free market, it was, however, doubted how far the prices of free sugar would materially come down as manufacturers would continue to remain in a better bargaining position. The market was unaffected by the announcement of the new policy.

However, the policy was not regarded as complete because the announcement was silent on the manner of disposal of the basic quota and also on the issue whether or not any portion of the basic quota would be made available for the free market.

## Chapter XIX

### SUGARCANE RESEARCH AND DEVELOPMENT

#### (1) SUGARCANE BREEDING STATION, COIMBATORE

Ninety new varieties, viz., Co. 746 to Co. 835 (both inclusive) were raised to the status of Co canes during the year. This represents the largest number so far released in one year. 53 new Co. canes were sent to Uttar Pradesh, 66 to Bihar, 34 to Bengal, 31 to Punjab, (I), 40 to Bombay, 35 to Madras, 26 to Hyderabad, 30 to Mysore, 30 to Madhya Pradesh and 29 to Orissa.

*Varieties sent Overseas*—Cuttings of the under-mentioned cane varieties were sent abroad for planting :—

- (1) Baghdad—Co. 281, Co. 285, Co. 313 and Co. 396.
- (2) Ceylon—Co. 453, Co. 527 and Co. 617.
- (3) Egypt—Co. 301, Co. 352, Co. 352, Co. 513 and Co. 527.
- (4) Iran—Co. 301, Co. 385, Co. 513, P. O. J. 105 and P. O. J. 234.

#### (2) SCHEMES FOR RESEARCH ON THE PHYSIOLOGY OF SUGARCANE FLOWERING, COIMBATORE

The physiological studies in relation to flowering consisted of photo-periodic, irrigation and manurial treatments for bridging the disparity in flowering between early and late varieties and including flowering in non-flowering varieties. This treatment for a continuous period of 56 days yielded better results than that for 146 days. The percentage of flowering in the variety Co. 421 was increased with mild photographic treatments, coupled with defoliation and root pruning.

In the manurial treatments, doses of nitrogen beyond 150 lbs. per acre have a tendency to delay flowering as well as to decrease the percentage of flowering. In the early varieties, Co. 285 and Co. 421, no delay in flowering was noticed in any of the treatments, even upto 300 lbs. N per acre, but a dose of 100 lb. N coupled with 280 lb. of  $P_2O_5$  per acre induced delayed flowering in the early flowering variety, Co. 285. The duration of the arrowing phase extending upto April. No flowering was induced by any of the treatments in the late flowering varieties.

Two non-flowering varieties, viz., Co. 443 and R. 3013 were grown under water logged conditions, with a view to inducing them to arrow but they did not flower.

Traumatic disturbances like boring holes, root pruning, partial ratooning, etc., have the effect of delayed flowering in the varieties Co. 285, Co. 421 and Co. 745.

#### (3) SPONTANEUM EXPEDITION SCHEME

During the year the States of Orissa, West Bengal and North Bihar were explored. Seventy three spontaneums, 24 different species of *Erianthus*, 4 specimens of *Sclerostachya fusca* and one of *Narenga prophyrocoma* were collected. While in South India, only two

species *S. Spontaneum* and *E. arundinaceus* were available, in Orissa, West Bengal and North Bihar at least 8 different species were collected. From the Darjeeling Hills, *E. fulvus* and *E. Sikkimensis* and *Miscanthus nepalensis* were collected. These genera are not met within the plains. The forms collected include those from areas within reach of saline tide water, from areas of severe frost at high elevation (6000 ft. above sea level) and from marshy areas and lakes of stagnant water, besides alluvial sands and silts which are the more common habitats of *Spontaneum*.

#### (4) SUGARCANE SUB-STATION, KARNAL

With the addition of 90 new Co. canes, the total number of varieties in the Live-Herbarium now totalled to 839 consisting of 501 Co. canes 121 North Indian varieties, 90 Spontaneums and the rest exotics and miscellaneous plants.

#### (5) EVOLVING SUGARCANE VARIETIES RESISTANT TO RED ROT AND SMUT

Fifty-eight varieties of Co. 213 parentage 22 varieties of Co. 301 parentage and 17 varieties Co. 331 parentage have been tested at Coimbatore. Co. 213 and Co. 331 have been found to be highly susceptible to Red rot, while Co. 301 is moderately resistant. The results obtained showed the reaction of the cane varieties tested in all the three series ranged from resistant to highly susceptible.

#### (6) MAIN SUGARCANE RESEARCH STATION, SHAHJAHANPUR U. P.

*Varietal Position*—The main feature of the varietal position in the Central and Rohilkhand Ranges were the replacement of Co. 313 by Co. 527 in areas with adequate irrigation facilities and the growing popularity of Co. S. 186, released for general cultivation in the Rohilkhand Range last year.

Hybrid fluff of 3 crosses received from Coimbatore gave 4,902 newly established seedlings. The varieties, Co. 617 Co. 622 and Co. 616 issued to zonal centres were found to give a satisfactory performance. Co. S. 426 and Co. S. 428 were the most promising varieties from preliminary varietal trial, Co. 62 and Co. 617 showed themselves to be as good yielders as Co. 421, and superior to it in juice quality. They have been included in the zonal trials of the year 1950-51. Co. S. 416 which topped the list in the standard trial appears to be another very promising variety while Co. 616 and Co. S. 365 were found to be good both for yield and quality of juice.

#### SUGARCANE RESEARCH SUB-STATION, MUZAFFARNAGAR, U. P.

*Varietal and Agronomical Studies, Muzaffarnagar, U. P.*—In the varietal trial Co. 637, Co. 639, Co. S. 335 and Co. S. 375 were found most promising. Ammonium Sulphate at 120 lb. N. per acre, groundnut cake at 120 lb. N. per acre or a mixture of the two on equal N. basis proved better than farmyard manure alone or in combination with either sulphate of ammonia or groundnut cake. The optimum dose of manuring for ratoons was found to be about 140 lb. N. per acre in the form of a mixture of ammonium sulphate and castor cake, on equal nitrogen basis.

### (8) SUGARCANE RESEARCH SUB-STATION, GORAKHPUR, U. P.

*Seedling, Varietal and Agronomical Studies*—The area under Co. 513 is on the increase in the Eastern Range and Co. 395 and Co. 453 are replacing Co. 313 and Co. 370 respectively. B. O. 3 gave the best cane and sugar yields in the standard varietal trial. It seems best to harvest Co. 313 latest by the end of January, while Co. 453 and Co. S. 109 could be kept standing without much loss in yield till the middle of March.

*Zonal Field trials and milling tests*—In the Eastern Range, Co. 453 gave the highest yields at Pharenda and Gauribazar, Co. K. 26, Co. S. 109 and Co. 393 showed the best performance at Sardarnagar, Baitalpur and Captainganj respectively. Co. S. 109 proved to be the best ratooner as in the previous year. Co. 453 gave the highest tonnage in the Mid-Eastern Range also. Gola and Maholi topped the list. Co. 453 proved to be the best yielding variety at Partabgarh and Faizabad and Co. 313 at Banaras. In the Rohilkhand Range, Co. S. 186 gave the highest tonnage at Seohara, Nagina and Bilari; Co. K. 30 at Seohara and Co. S. 186 at Bilari were found to be good ratooners. In the Western Range, Co. 453 gave the highest yield in the Daurala zone. From amongst the new varieties tried, Co. S. 321 has shown the best performance both in cane yield and juice quality. On the whole, Co. S. 186 has proved to be a good ratooner. Superphosphate, broadcast at planting time has caused a slight increase in yield, but showed some deleterious effect on juice quality in almost all the Ranges. Milling tastes conducted during the year showed that in the Eastern Range Co. 395 was superior to Co. 313 and in the Mid-Eastern Range Co. 313 gave higher percentage recovery than Co. 453. At Maholi and Lakhimpur Kheri in the Central Range Co. 527 and Co. 421 were found superior to Co. 313 and Co. 453 respectively. In the Rohilkhand Range, Co. 421 proved to be slightly superior to Co. S. 186 in the early part of January, but towards the end of the month the superiority of Co. S. 186 was not well established. In the Western Range, Co. S. 245 has proved to be a fairly early ripener. A steady improvement in quality with the advance of time has been noticed in Co. 453.

### (9) SUGARCANE RESEARCH SCHEME, BIHAR

#### Central Sugarcane Research Station, Pusa

*Cane Agronomy—Varietal*—In Varietal trials at Pusa, B. O. 11 exceeded all early varieties in respect of yield (605 mds. per acre), showing at the same time a high sucrose level (17.39%) while Co. 453 proved the highest yielder (702 mds. per acre) among the mid-early and main season varieties. B. O. 11, however, was superior in sucrose content throughout the harvesting period with tonnage coming next only to Co. 453. Results obtained at the factory estates, departmental farms and zonal centres showed Co. 453 to be the heaviest yielding variety (varying from 22.6 to 39.8 tons acre) followed by B. O. 11 and B. O. 10 (19.3 to 34.6 tons and 17.5 to 29.4 tons) respectively. B. O. 24 gave an excellent performance under low lying conditions.

*Manurial*—In the NPK trials, a clear response to Nitrogen (as groundnut cake) was recognised, the optimum dose from yield considerations appearing to be 40 lb. N. per acre. No significant conclusions resulted from trials on the mode of application of manures (mustard cake

and ammonium sulphate applied in five different ways) Applications of Ammophos 15 days before planting or at planting at a depth of 8 inches proved most advantageous. In a comparative study of the effect of organic and inorganic manures, the best results were obtained with groundnut cake applied 15 days prior to planting. Linseed cake at 80 lb. N. per acre was associated with the highest yields, as compared to all other cakes under examination. In trials on the optimum dose of castor cake and groundnut cake, maximum yields were generally obtained with 120 lb. N. per acre and the effect of castor cake was more pronounced than the groundnut cake. Trials at zonal centres on the response of different varieties to various combinations of manures revealed highest yields with mustard cake triple super for Co. 453 and mustard cake Ammosulph Triple super in case of B. O. 11. The optimum dose of Ammophos with Co. 453 appeared to be 100 lb. N. 125 lb.  $P_2O_5$  at Pusa while at Harinagar it was 90 lb. N. 100 lb.  $P_2O_5$ . In case of B. O. 11, however, the dose 60 lb. 75 lbs.  $P_2O_5$  produced the best results. In a comparative study of the optimum N. and P. requirements (when applied as Ammophos singly or as castor cake and Ammosulph in combination with triple super Ammophos (at 40 lb. N. 50 lb.  $P_2O_5$ ) gave the best results at Motihari while at Parsa, Ammophos and Triple Super (60 lb. N. 75 lb.  $P_2O_5$  proved outstanding.

A heavy infection of Rex Stripe was noticed for the first time in the state in B. O. 10 crop in several areas in South Bihar. Of 222 acres under B. O. 10 examined for Red Stripe in South Bihar, 56 acres were found affected. Stray cases of the disease were also recorded in North Bihar, in B. O. 10. The disease was also noticed on the leaves of a number of cane varieties. Crops suffering from bad attacks of Red Stripe were under constant watch, the heavily affected clumps being roughed. Leaves showing stripes were clipped and the crops recovered after the monsoon season and showed good growth.

#### (10) SUGARCANE RESEARCH SCHEME IN PUNJAB (I)

*Varietal*—From the seedlings raised at Jullundur, 421 selections were made on the basis of their growth and richness of juice. Crosses from Co. 312, Co. 285 and Co. 312 and Co. 313 gave vigorous seedlings. Of the previous selections, S. 137, S. 1315 and S. 1388 showed a combination of high juice quality with good growth. In the case of imported canes, Co. 691, Co. 694, Co. S. 245 and B. O. 21 were found promising in the small scale preliminary yield trials.

Out of the new varieties under trial in the final variety tests, Co. I. 17, Co. I. 22, Co. I. 29 and Co. 621 as early maturing canes and Co. K. 30 and Co. I. 31 as mid-season and late canes, maintained their good performances and were released for zonal trials under the Cane Development Scheme.

Co. I. 22 was found highly resistant to pyrilla and its seed material was sent to Coimbatore for use in future crossing work.

*Cultural*—Planting of cane in rows 2 ft. apart gave higher yield than planting them 3 ft. apart by about fifty maunds per acre.

Hoeing with manual labour and weeding gave higher yield than hoeing done with bullock power.

*Ratooning*—Late harvesting of the preceding crop is a pre-requisite for getting higher yield of ratoon crops. Trash mulching the December harvested crop has an adverse effect on the sprouting of the stubble and the final yield of the ratoon crop.

### (11) SUGARCANE RESEARCH SCHEME, MADRAS

50 varieties of sugarcane were studied in the study plots under normal conditions of manuring and irrigation in comparison with the standard variety, Co. 419. The following varieties were promising, both from the point of yield, as well as, juice quality: Co. 636, Co. 637, Co. 640, Co. 646, Co. 648, Co. 650, Co. 655, Co. 660, Co. 672, Co. 673, Co. 677, Co. 678, Co. 682, Co. 683 and Co. 684.

In the yield trials of early maturing varieties, Co. 620 and Co. 630 were found to yield well. Between the varieties, Co. 471 and Co. 527 there was no difference in yield, but the quality of Jaggery in the case of Co. 527 was found to be excellent with golden yellow colour and good crystalline structure. Among the mid-season varieties, no differences were observed, while in the late yield trials, Co. 419 and Co. 615 gave higher yields than Co. 617 and Co. 630. Under water-logged conditions, Co. 419 again proved to be superior to others and Co. 471 was found unfit for cultivation under swamp condition, as the plants withered, with leaves turning pale, under water-logged conditions in the field. In the ratoon experiment plant crop first ratoon, and second ratoon, were in the decreasing order of yield, while it was the reverse with regard to sucrose content and earliness. Addition of nitrogen over the scheduled dose of 100 lb. N. per acre, pulled up the yields of ratoons. Application of phosphoric acid did not influence either the yield or the juice quality.

### (12) SUGARCANE RESEARCH SUB-STATION, GUDIYATTAM (MADRAS)

*Varietal*—In the varietal study plots 57 varieties were under study. Out of the 12 varieties that completed the third year of study, Co. 635, Co. 636, Co. 638, Co. 642 and Co. 644 were found to be promising. In the yield trials Co. 643, Co. 644 and Co. 636 yielded on a par with the control, Co. 449, among the early maturing varieties. Among the late maturing varieties, Co. 467 was the highest yielder with 40.6 tons of cane per acre. Jaggery from Co. 475 was of exceptionally good quality.

*Manurial*—In the manurial trial, application of 50 or 100 lb. of phosphoric acid, in combination with 200 or 250 lb. of nitrogen per acre did not influence either yield or jaggery quality.

*Irrigation*—In the study of irrigation of cane, irrigation once in 6 days, 12 days and 18 days gave the same yield, confirming the previous conclusion that normal yield could be attained by irrigation once in 18 days, instead of once in a week, as is usually done by the ryots. But shorter intervals of irrigation indicated the hastening of maturity.

*Cultural*—In the March-May planting trial, sugarcane planted in May, 1948 and harvested in December, 1949 showed more than 17 per cent sucrose in juice, even in October at the age of 15 months.

### (13) SUGARCANE RESEARCH SCHEME, HYDERABAD

*Varietal Studies*—Of this year's Coimbatore releases, Co. Nos. 703, 705, 710, 714, 725, 727 and 744 were promising.

Co. 624 was good in both yield and juice quality in the preliminary varietal test.

*Final "Eksali" Varietal Test on 'Chalka' Soil at the Agricultural Experiment Station, Yeadpally*—Amongst the earlies, Co. 562 and Co. 553 were significantly superior to the rest. Amongst the mid-seasons, Co. 467 Co. 527, and Co. 419 were significantly superior to Co. 524 Co. 553, Co. 527 and Co. 467 and were leading in juice quality throughout.

*Final "Eksali" Varietal Test on 'regur' soil at the Agricultural Research Station, Rudrur*—Among the earlies, H. M. 645 was significantly lower than the rest in yield, but was outstanding in juice quality. Amongst the mid-seasons, Co. 524 was significantly lower than the rest. Co. 467 was the highest yielder and along with Co. 527 was leading the rest in juice quality.

*Final Adsali Varietal Test on 'Chalka' soil at the Nizam Sugar Factory Estate, Shikar-nagar*—Co. 527 was significantly superior to the rest in yield and was outstanding in juice quality too. Amongst the mid-seasons, Co. 532 yielded significantly lower than the rest, while Co. 419 and Co. 523 were good in juice quality.

#### (14) SUGARCANE BREEDING SCHEME, MYSORE

*Varietal trials*—During the year, 16 promising Mysore canes of 1940-45 batches were again under test, for the third time on the Hebbal Farm. Of these H. 0208, H. 0348 and H. 0380 appear to be highly promising and have yielded over 40 to 45 tons per acre.

A preliminary varietal trial with 3H. selections and 8 Co. canes has been started at Hebbal and the experiment is in progress.

On the Visveswariah Canal Farm, 3 varietal experiments are in progress. 7 new Mysore canes of 1940-45 batches and 5 Co. canes selected from 1943-47 batch releases have been put under statistical varietal trial for the first time.

Co. 417 and Co. 421 and 8 Mysore canes I. C. 8, I. C. 26, I. C. 29, I. C. 39, I. C. 301, I. C. 202, I. C. 203 and I. C. 215 along with 4 standards are being tested for the second time. In the earlier trial Co. 417 and I. C. 215 had given higher yields than Co. 419 which is the standard variety for the area.

At the Babbur Farm, a varietal trial with Co. 419, Co. 290, H. M. 661, H. M. 645 and H. M. 647 was completed for the fourth time. All the varieties yielded on an average between 20-25 tons per acre, the difference in yield between the varieties being not significant. The ratooning capacities of these varieties are being studied.

*Maturity Studies*—28 selected varieties of cane were planted in the months of August, October and December, 1948 and the progress of maturity followed by analysis at monthly intervals, commencing from the 10th month. The results obtained show that I. C. 136 promises to be an early ripener, giving a sucrose of 29% and purity of over 90% in 10-11 months from the time of planting.

## **Chapter XX**

### **TECHNOLOGICAL RESEARCHES IN INDIA**

#### **RESULTS OBTAINED ON IMPORTANT PROBLEMS AT INDIAN INSTITUTE OF SUGAR TECHNOLOGY**

##### **NEW TECHNIQUE OF CLARIFICATION IN SULPHITATION SUGAR FACTORIES**

A very interesting and new technique of clarification has been developed. In this method, the juice up to the point of boiling, is treated in the usual method, using the same or a larger amount of lime. After the treated juice has been heated to boiling, sufficient milk of lime is added to it, to make it highly alkaline upto about 9.5 to 10.5 pH and then either (a) to neutralise the alkanity with SO<sub>2</sub> and to retreat to boiling, to settle and to decant as in the usual process, or (b) to filter the whole of the alkaline juice quickly, neutralise the alkaline filtrate with SO<sub>2</sub>, heat to boiling and remove the precipitate formed by subsidence or filtration. It has been found that in this process (a) a considerably higher rise in purity is obtained than in the usual process and (b) the colour also of the final juice is very light compared to that of juice obtained from the same raw juice in the usual method. An application has been filed for patenting the above process.

##### **A STUDY OF THE MILL SETTINGS AND GROOVING OF THE MILL- ROLLERS IN FACTORIES GIVING HIGH MILL EXTRACTION**

A new type of differential grooving in conjunction with Messchaert grooving was proposed, designed and tried in the last mill of the Experimental Sugar Factory. It was found that juice flowed off quickly from the feed roller and the moisture in bagasse was reduced with increased maceration. This type of grooving appears to be very useful, but further experiments have to be undertaken to confirm the results, preferably in a full-sized factory.

##### **PRESERVATION OF NEERA**

Neera (palm juice) is collected and allowed to settle for some time in large containers. The suspended impurities settle down and the sparkling water-like Neera is decanted or syphoned into larger containers. The Neera may be tested for acidity and the pH kept at or above 8, and the preservative (Sulphanilamide) added. The Neera must be vigorously stirred so that the preservative is thoroughly mixed in it. This Neera may be kept in a cool place or under shade and it will continue to be fresh for days.

##### **UTILIZATION OF NEERA FOR THE PRODUCTION OF FOOD YEAST**

On account of the prohibition scheme launched in the various States Neera which so far was mostly being fermented for the production of toddy is almost completely going to waste and only a part of it is being utilised for the manufacture of palm jaggery or sugar. It was, therefore, thought desirable to put it to some better use and trials were made to ferment it for making food yeast.



Food yeast thus prepared was white in colour, and superior to that prepared from molasses and had better taste and flavour, but the yield was very poor amounting to only 15 per cent on the total sugars present. The low yield was probably due to insufficient aeration.

### **ACONITIC ACID FROM CITRIC ACID**

Aconitic acid was synthesised by the catalytic dehydration of citric acid. The yield is about 40% of the theoretical amount.

### **PHYSICO-CHEMICAL STUDIES ON SURFACE ACTIVE SUBSTANCES**

Ostwald's "Rubin number" gives a measure of the protective action of a hydrophilic colloid. This is of interest to the sugar industry in assessing the amount of hydrophilic colloidal impurities in sugars and sugar products. A new technique has been developed for determining "Rubin number," thus overcoming the defects in the existing method.

The results obtained by this method in the case of starch, casein and albumin show the same trend as the results of the earlier methods. It is proposed to apply this method for the determination of "rubin number" of commercial sugars.

### **FURTHER WORK ON THE NEW TECHNIQUE OF CLARIFICATION BY THE SULPHITATION METHOD**

The New Technique as developed in 1950 applies only to mixed juice. Although application for patenting the process was submitted last year, it was decided to carry on further work on this process. To begin with, the New Technique has been applied to the raw juice with and without the addition of phosphoric acid or phosphates. The effects of addition of lime at different temperatures and at different stages of clarification, and of increasing doses of lime in the New Technique have also been studied. But the most important work on the New Technique this year has been its application to middle juice or syrup of 40-45° Brix as may be obtained from the third body of the Quadruple effect vaporator.

The New Technique as applied to middle juice or syrup of 40-45° Bx. has the additional advantages over its application to the thin juice in a higher rise in purity thus giving a higher recovery and more brilliant syrup giving better quality sugar although the total amount of lime and sulphur is only slightly more in the case of syrup treatment.

### **INVESTIGATION ON THE WORKING OF THE OLIVER CAMPBELL**

This filter is being used in other countries which are essentially raw sugar producers. In India raw sugar is not made and instead direct consumption white sugar is manufactured. It was, therefore, considered desirable to collect some data on the working of the Oliver filter in some sugar factories in India with a view to finding its relative merits over the plate and frame type presses. The results have been collected from four sugar factories.

A study of the results indicates that the Oliver filter has a number of indisputable advantages in its favour, the main being saving in sugar loss, less labour bill, no filter cloth consumption and a cleaner clarification house. As against these the increased amount of wash water used will make the equipment unsuitable for factories which suffer from bad fuel economy. The effect of recirculation of mud is also a strong point against this equipment. As all Oliver

installations are new in this country, at this stage, nothing can be said about the life of various parts and the cost of replacements. A lot of other useful data has also been collected about the working of the Oliver filter.

### PLASTICS FROM SUGAR AND ITS BY PRODUCTS

(a) *Preparation of the resin*—In continuation of last years work on this problem, experiments were conducted to standardize the process of preparation of resin from molasses with phenol and also with creosote. Creosote used in the experiments of last year was of German make and gave an excellent resin. In order to economise the process crude creosote of Indian origin was tried but it gave poor results. The resin obtained was not homogenous and the "condensation of molasses with creosote did not go on smoothly. Phenol on the other hand gave a good quality resin.

(b) *Moulding Powder*—The moulding powder from the resin obtained as above was prepared by solvent mixing as well as by hot roller mixing, the latter was done at (the Indian Lac Research Institute, Namkum). The latter process saves much time, and on commercial scale this method would be more economical than the solvent mixing method. It has been found that it is the filter in the moulding powder which defines the impact and tensile strength of the moulded plastic. Of the fillers, kaolin, bagasse dust, asbestos and sawdust, the last one has been found to be best in regard to the physical strength of plastic. Experiments are also being conducted to investigate the effect of other fillers, viz., Haldu dust, cotton dust, etc., on the strength of the moulded plastic.

(c) *Properties*—The tests in regard to the physical and electrical properties of the plastic prepared by this process were carried out at the Indian Lac Research Institute, Namkum. Bars and discs of standard dimensions were moulded for the determination of various physical and electrical properties. The properties investigated are: impact strength, heat resistance, dielectric constant, dielectric strength or break down voltage and power factor.

Impact strength=1.15 cm. kg/cm<sup>2</sup>

Heat resistance=117°C.

Dielectric strength=292 volts/mill.

Heat resistance and the dielectric strength of the plastic compare favourably with those of the phenolics.

At the Lac Research Institute, some articles of daily use, viz., pin trays, vermilion box, ceiling rose, screw caps for bottles and saucers were moulded. All these articles had black colour with good gloss and came out smoothly from the mould indicating good flow of the moulding powder.

An application has been submitted to cover the process by a patent.

### STUDY OF QUALITY CHARACTERISTICS OF CANE WAX

(i) *Demineralization of crude wax*—Crude wax was heated with dil. HCl and then washed with water to remove excess of acid and soluble salts.

Crude wax Ash % = 3.9

HCl treated wax Ash = 1.2

(ii) *Defatting of wax*—This was very conveniently done by melting the wax with a little toluene or solvent oil, pouring the melted wax in 96% alcohol with agitation. Wax is obtained in a granular form and the fat is left behind in alcohol. For very good separation, the process is repeated twice or thrice. In usual practice, acetone is used for removing the fat, but the above process has been found to be equally good.

	Iodine value	Sap. value	Acid value
Crude Wax ... ..	65.1	78.6	could not be determined
Wax acetone refined ... ..	31.6	106.9	14.0
Wax alcohol (96%) refined ... ..	31.2	104.0	6.4
Wax Alcohol (90%) ... ..	45.2	106.2	17.6

The low saponification value of the crude wax is explained by the fact that it contains calcium salts of fatty acids which are not saponified by alcoholic potash.

(iii) *Bleaching of wax*—The wax obtained as above is of a deep brown to chocolate colour. It is bleached by heating the wax with potassium chlorate and sulphuric acid at 98-100°. The mixture is stirred by bubbling in air. The wax thus obtained has a light brown colour and melts at 78-80°.

(iv) *Isolation Purification and Chemical examination of the fatty portion of cane wax*—The fatty rich portion of the wax has been separated into (1) sterol fraction and (2) mixed fatty acid fraction. The latter has been separated into saturated and unsaturated acids. Further work is in progress.

### ION-EXCHANGE RESINS FROM SUGARS

Ion-exchange resins are playing an important role in the clarification of cane-juice in sugar manufacture. Since phenolic resins from sucrose and molasses have been prepared in this laboratory by condensation of these materials with phenol, it was thought that it might be possible to prepare ion-exchange resins from sugars.

Sucrose and glucose were condensed with phenol sulphonic acid. Black, shining resins in flakes was obtained. After washing and drying the resin was titrated against N. NaOH using methyl red and phenolphthalein as external indicators. Titrations were also done in presence of NaCl. Base exchange value of the above resin and that of Duolite C<sub>3</sub>H are given below for comparison.

Capacity of the ion exchange=1.9 milli-equivalent/gram of resin.

Capacity of the ion Doulite C<sub>3</sub>H=2.0 milli-equivalent/gram of resin.

### EVALUATION OF SUGARS FOR CONFECTIONERY MANUFACTURE

The presence of many impurities even in traces affects the suitability of refined sugar for use in candy making and other manufacturing processes. The pucherna's caramelisation test is one which has been suggested for examining the suitability of sugar for such processes.

In the present work the effect of impurities on the decomposition of sugar while subjected to high temperature has been investigated. For doing this, sugar and the impurity in known amounts are kept at 160°C for 15 minutes. The resulting solution is then analysed for colour, sucrose and reducing sugars.

The results show that the presence of salts of weak acids brings down inversion and are likely to increase colour development. Inorganic acids and their ammonium salts bring about tremendous amount of inversion and also cause high colour development. This work is complete.

### ALKATHENE FILM AS A WRAPPING MATERIAL FOR THE CONFECTIONERY

A comparative study has been made on the behaviour of confectionery on being wrapped with (a) waxed paper, (b) alkathene film and (c) alkathene layflat tubing while exposed to atmospheres of 80%, 60% and 40% humidity. It has been shown that using alkathene layflat tubing or film for wrapping confectionery is greatly advantageous.

### PRODUCTION OF CITRIC ACID

Five strains of *Aspergilli* were purified and mother culture tubes prepared by single spore selection giving high acidity. These pure cultures were tested on sugar and media having standard compositions worked by other authors. The medium giving best response was used for working, and two cultures were selected for further study. The variation in the constituents Fe, Zn, Mn and Mo in trace amounts at different concentrations with a view to fixing an optimum concentration has been studied and determination of final limits of these are in progress. The effect of Mo has been particularly visible on the type of mycelium growth as shown in the attached photographs. Further work on these, i.e., combination of trace elements at different ratios of nitrogen, phosphorus and Magnesium at various concentrations of sugar is in hand.

Preliminary trials have been taken on molasses used without clarification regarding behaviour of the single spore cultures of five strains to see if culture specificity plays a role on the yield of citric acid on molasses. The accumulation of calcium in the mycelium and the effect of high ash constituents seem to play more important role on the uncertain behaviour of molasses towards citric fermentation as shown by heavy mat growth and not the strain specificity.

### (ii) SUGAR RESEARCH AND TESTING STATION, BILARI

#### Summary of work done during the Years 1949-50 and 1950-1951

*Study of the economics of the working of six-roller mill with imbibition arrangement as against three-roller mill of the same size and make*—The 6 roller-mill give a profit of Rs. 6-6-10 per day more than the 3-roller mill. But this profit is very low in comparison with the profit made by working two 3-roller crushers independently with the same capital investment.

*Testing of Kolhus*—5 Kolhus including Bilari Kolhu No. 3 were tested for their capacities and efficiencies.

*Comparative study of the keeping quality of gur*—Periodical examination of the three samples of gur prepared by (a) Deola Clarification, (b) Lime-sucrate and (c) superphosphate clarification, is still in progress.

*Testing of three-pan molasses bel*—Boiling capacity of the three-pan molasses bel was found to be 5.11 maunds molasses per hour and the fuel consumption to be 33.18 per cent on molasses.

*Study of the manufacture of special types of Gur, e.g., Chaku—Minjha, Andarki Gur by Gaozaban clarification and Shakkar*—The process of manufacture with technical data as to yield, etc., in respect of each type of gur was studied. Chaku-Minjha gur is pleasing in appearance and very good in taste. Andarki tastes better than Chaku Minjha due to the addition of cardamoms and small slices of coconut. Gur made by Gaozaban clarification method is inferior in colour to the gur made by deola clarification.

*Demonstration, Publicity and Training*—Demonstration of the improved process of sugar manufacture evolved at the Research Station was given for the whole season at the Govardhan Sugar Works, Muzaffarnagar. Four improved Meerut Bels have been installed and worked this season. Samples of sugar and rab produced by the improved process were sent to the Agricultural Exhibition at Muzaffarnagar, to be exhibited side by side with the samples of Khandsari sugar made by the ordinary process.

To popularise the improved process, handbills explaining the advantages of the process, as well as, Hindi copies of the bulletin "Manufacture of sugar by Open-pan system with improved process and equipment" were distributed in the Muzaffarnagar Exhibition.

*Trial of six roller mill as against a three roller mill*—With a view to investigating in fuller detail the comparative economics between a six roller mill tandem and a three roller mill for a Khandsari factory these were worked on alternate days throughout the season this year, the season being of a very short duration. Calculated on the basis of eight hours working day there is found to be a net profit of about Rs. 6-1-9 per day in working the six roller tandem as against a three roller mill. Besides the profit in working the six roller tandem there is a saving per day of 0.87 mds. sugar which was going to waste in a three roller mill.

*Testing of a molasses bel using fuel wood*—The boiling capacity of the molasses bel with fuel wood is 3.3 mds. per hour as against 3.01 mds. per hour of the Desi molasses bel with dry leaves. The efficiency of the bel is 93.67. This molasses bel can be used with advantage where fuel wood at cheaper rates is available.

*To study the economics of burning crude oil with semi-dry bagasse in the Improved Meerut Bel on rainy or cloudy days when dry bagasse is not available for boiling juice*—The Improved Meerut Bel can be worked with bagasse having 32.0% moisture if mixed with 2.72% crude oil. The boiling capacity of the bel comes to 11.93 mds. juice per hour as against 13.53 mds. per hour when worked with dry bagasse. The extra-expenses when moist bagasse is used come to Rs. 7.24 per day while by using semi-dry bagasse mixed with crude oil in furnace the Khandsari will have a gross income of Rs. 23/- plus his usual profit minus Rs. 7.24/-.

*Comparative Study of the Keeping Quality of gur produced by :—*

1. Deola Clarification.
2. Lime Sucrate and Superphosphate clarification.

The least deterioration has been noticed in the case of gur produced by the lime sucrate process and highest in case of gur of superphosphate clarification. In the case of gur of lime sucrate process, the fall in purity after a stay of 14 months was, 6.67 as against 7.03 of deola or, 9.09 of superphosphate clarification.

*Improving the quality of the third sugar of the Sulphitation process by single purging and then mixing with syrup in a crystalliser*—Single purged third sugar after mixing with syrup in a crystalliser and on second purging did not produce any improvement in the resulting sugar. But when the 3rd sugar was melted and mixed with 1st rab in the crystalliser, the resulting sugar on centrifuging compared favourably with the colour of usual 1st sugar of sulphitation process of the best quality. But in this case only 69.2% of the sugar melted could be recovered.

*Demonstration, Publicity and Training*—Demonstration of the Improved process of Sugar manufacture by the open pan system under the demonstration scheme was arranged this season at the Bhureka Farm, Dist. Mathura, U. P.

### (iii) SCHEME FOR RESEARCH ON THE MANUFACTURE OF SUGAR CANDY (RAVALGAON)

The experimental work on a semi-large scale was started on the 8th December, 1949, with a quota of 50 tons of sugar per month sanctioned by Government.

The important items of work carried out during the year are as follows :—

*Rotary Vacuum Candy Crystalliser*—The use of a hand refractometer of the range of 40°-80° Brix inside the crystalliser, as a controlling instrument, proved to be very helpful in adjusting water and syrup inlets during boiling and thus maintaining a proper supersaturation.

For crystal growth in the crystalliser, boiling with high purity syrups of 98.5 to 99.0 purity entailed great care on the part of the workman to avoid secondary grain formation. In view of this, boiling was done with low purity syrup of 91.0 to 92.0 purity. It was found that the mother liquor before being used should be treated with carbon and then boiled to 70° Brix.

A few improvements have been suggested to be introduced in the Rotary vacuum crystalliser.

*Further studies on the analytical technique for the evaluation of hard candy*—The work was confined to the analysis of hard candy whose main ingredients are sugar and a cutting agent like corn syrup or an organic acid. All standard methods of analysis of sugars and sweets for different ingredients were tried and data collected. Methods giving correct estimation were adopted. From the analytical data so obtained, the percentage of different ingredients have been calculated. A number of samples have been analysed and the actual percentage of the major ingredients have been worked out.

### COMPARATIVE STUDIES ON THE QUALITY OF FOREIGN AND INDIAN CONFECTIONS WITH A VIEW TO STANDARDISING THE INDIAN PRODUCTS

As a result of comparative tests of Indian confections with those of foreign make, obtained from the Bombay Market, viz. (1) Pascall's Fruit salad, (2) Pascall's assorted Dessert, (3) Nubli

Brittle and (4) Almond Butler Crunch, it was found that there was no appreciable difference in composition between the Indian and foreign sweets. Foreign confectioners use more of nuts or almonds in the manufacture of confections for enhancing their food value, but this is seldom done by Indian manufacturers.

### **STUDIES ON THE MANUFACTURE OF PALM CANDY FROM PALM JUICE DIRECT**

With the co-operation of the Palm Gur Adviser, a tour was undertaken to study the method of palm candy direct from Palm juice as prevalent in the Madras Presidency. The methods followed were found to be very crude and wasteful. Necessary improvements were suggested. As a result of discussions with the Palm Gur Adviser to the Government of India regarding improvement of the process to be followed, plans are being drawn up to initiate researches on the manufacture of Palm Sugar and Palm Candy at some important places in India.

### **INVESTIGATION INTO THE EFFECT OF PROVIDING SPOKES IN THE JAWS OF THE BLAKE CRUSHER AND ITS PERFORMANCE**

It was found that the introduction of the spokes resulted in about 4% less dust.

### **ROTARY VACUUM CANDY CRYSTALLISER**

(a) Experiments on crystallisation of candy using low purity syrups and higher speed of rotation were tried. The speed of the crystalliser was changed from 1.4 p.m. to  $2\frac{1}{2}$  r. p. m. The results were, however, not encouraging. The rate of crystallisation was reduced due to frequent formation of false grain which have to be dissolved by taking in hot water. The only encouraging feature with higher rotation was the absence of conglomerates. It is proposed to repeat the experiments using a speed of 1.5 r.p.m.

(b) Experiments on the manufacture of special sugars like "Coffee crystals" and "Castor Sugar" in our rotary crystalliser have been very successful. Ordinarily, special crystallisers like the Oslo or the Lafeuille crystallisers are used for producing the coffee crystals.

(c) On the basis of the difficulties and drawbacks with our present rotary crystalliser it is proposed to introduce modifications in the design as shown in the sketches, appendices 1 and 2

(d) In a regular running of the rotary crystalliser it was frequently observed that the final crystal sizes did not show any relationship to the original seed sizes. With a view to investigating this aspect, a number of experiments were carried out this season using irregular but definite sized seed crystals. These crystals were grown for a definite time, and the growth curve studied in relation to size only. Surprisingly enough no simple relationship of the sizes of ultimate crystals could be established with the original seed crystals. The experiments will be continued.

(e) The work with the use of jacketed electrodes for the Cuitometer could not be taken up this season as it was found impossible to insert the Cuitometer electrodes without dismantling the main structure. Provision, however, has been made for these jacketed electrodes in the new proposed crystallisers.

### **IMPROVING THE BLADE TYPE JAW CRUSHER**

The Black type jaw crusher was first introduced in Sugar Candy manufacture during the season 1947-48. While giving the desired output and quality of cut-candy the production

of dust was about 11.00% on the weight of total candy cut. Attempts were made to reduce this percentage of dust formation. Elongated type of pointed spokes on the lower end of the moving jaw were tried last season. This reduced the dust to about 7.0%, but at the same time the rate of crushing was reduced from 800 lbs. to 500 lbs. per hour. In order to reduce this dust further as well as to increase the rate of crushing, it was proposed to try pyramidal spokes. This modification reduced the dust formation to 4.8% but had no effect on the speed of crushing. On a close scrutiny of the operations it was observed that the speed might improve if the upper two rows of the spokes be eliminated. This modification will be tried during the next season.

## **SYNOPSIS OF TECHNICAL RESULTS OF CENTRAL SUGAR FACTORIES IN INDIA FOR THE SEASON 1949-50**

In order to have an idea of the working of the Central Sugar Factories in India during the season 1949-50, a synopsis of technical results (averages for the different territories as well as for the whole of India) has been prepared and is given in Table No. 113.

In order to find out how the "All India" efficiency figures compared with those of the other sugar producing countries of the world the average figures of India for 1949-50 and the latest average figures available from other countries were compiled and are given in Table No. 114. A brief commentary thereon is given below.

### **COMMENTS ON THE WORKING OF CENTRAL SUGAR FACTORIES IN INDIA**

*Cane Quality*—It will be seen that factories in the state of Bombay crushed the best quality of cane having the highest average sugar % cane and purity of primary juice. The lowest fibre % cane, however, has been recorded by factories situated in the territories of Hyderabad, Mysore and Travancore. In Uttar Pradesh, factories in the eastern districts have crushed cane of better quality than those in the Central or Western U. P. The factories in the Punjab, and PEPSU continued to crush cane of very poor quality.

### **RECOVERY (SUGAR % CANE)**

Bombay factories recorded the highest average recovery, the territory covered by Assam, West Bengal and Orissa coming next. The factories in the Punjab and PEPSU have recorded the lowest recovery of sugar. The highest average production of molasses % cane was recorded by the factories in the region covered by Assam, West Bengal and Orissa and the lowest by the factories in East Uttar Pradesh.

### **MILLING RESULTS**

The reduced mill extraction was highest in Bihar, whereas the recorded mill extraction was highest in Bombay. The reduced mill extraction was lowest in the factories in the territory covered by Hyderabad, Mysore and Travancore and the recorded mill extraction was lowest in Madhya Bharat, Bhopal, Ajmer, Rajasthan and Vindhya Pradesh.

### **SUGAR BALANCE**

The losses under all heads were highest in Hyderabad, Mysore and Travancore, which was due to the poor boiling house working. The total losses were lowest in Bombay.

### **BOILING HOUSE RESULTS**

The recorded boiling house extraction was the highest in Bombay and the lowest in Hyderabad, Mysore and Travancore. The reduced boiling house extraction was the highest in the Punjab, PEPSU and Kashmir and the lowest in Hyderabad, Mysore and Travancore.



## OVERALL RESULTS

Bombay recorded the highest overall extraction whereas the reduced overall extraction was highest in the Punjab and PEPSU. The lowest figures were recorded by factories in Hyderabad, Mysore and Travancore.

## CONSUMPTION OF STORES

The maximum consumption of lime was in Hyderabad, Mysore and Travancore and of sulphur in Bombay. The lowest consumption of lime was in Madras and of sulphur in the Punjab and PEPSU. The consumption of limestone and coke was highest in Bihar and lowest in factories in Madhyabharat, Bhopal, Ajmer, Rajasthan and Vindhya Pradesh. Highest consumption of filter cloth was in the Punjab, PEPSU and the lowest was in Hyderabad, Mysore and Travancore.

## COMPARISON OF FIGURES OF INDIA WITH THOSE OF FOREIGN COUNTRIES

After a study of the working of factories in the Indian Union it is worthwhile to see how the figures for the Indian Union compare with those of other sugar producing countries of the world, viz., Mauritius, Br. Guiana, Hawaii, Queensland, Trinidad, Puerto Rico, Natal, Louisiana, Formosa from which countries only figures are available.

In interpreting the Indian figures, it is very necessary to bear in mind the wide variations in the figures from which these averages have been derived. These variations are the inevitable consequence of the widely varying range of physical and climatic conditions of the different cane growing tracts over which the Indian Sugar Industry is spread.

## QUALITY OF CANE

From table No 114, it will be seen that with the exception of British Guiana and Louisiana, the average quality of cane in India was the poorest, Queensland shows the highest sugar content while Mauritius records the highest purity of the primary juice. The fibre content of cane in India has been lower than that of Natal only but higher than that of other countries.

## RECOVERY (SUGAR % CANE)

With the exception of British Guiana and Louisiana, India has the poorest recovery, Queensland recording the highest recovery followed by Mauritius.

## MILLING RESULTS

India's Milling performance is comparatively not satisfactory. Milling performance is best in Formosa followed closely by Hawaii.

## SUGAR BALANCE

India compares favourably with other countries as regards sugar losses. Indian figures for total losses are lower than those of British Guiana and Louisiana. Formosa recorded lowest losses and next is Hawaii.

## BOILING HOUSE AND OVERALL RESULTS

An examination of the figures relating to the boiling house and overall performances of the different countries shows that the Indian performances are quite satisfactory. The reduced boiling house extraction for the Indian Union is better than those of Mauritius and Natal. The reduced overall extraction for the Indian Union is better than those of Mauritius, British Guiana and Natal. Formosa has recorded the highest boiling house and overall extractions.

Table No. 113

## SYNOPSIS OF TECHNICAL RESULTS OF CENTRAL SUGAR FACTORIES IN INDIA FOR THE SEASON 1949-50

TERRITORIES												
SL N.	Technical Results	Punjab, PEPSU and Kashmir	West Uttar Pradesh	Central Uttar Pradesh	Eastern Uttar Pradesh	Bihar	Assam, West Bengal and Orissa	Bombay and Saurashtra	Madras	Madhya-bharat, Hyderabad, Bhopal, Ajmer, Rajasthan and Vindhya-pradesh	Average for India	
1. Cane Quality :												
(a)	Sugar percent cane	...	11.84	11.90	12.05	12.33	12.52	14.20	11.85	11.57	12.96	12.24
(b)	Fibre percent cane	...	15.38	15.91	16.60	18.11	15.58	13.22	13.50	15.49	11.97	15.80
(c)	Primary Juice Purity	...	82.57	83.04	84.91	84.26	81.50	87.82	81.94	79.00	83.18	82.26
2. Yield :												
(a)	Yield of sugar % cane	...	9.55	9.56	9.83	9.91	10.05	11.84	9.51	8.99	9.90	9.88
(b)	Production of Molasses % cane	...	3.43	3.67	3.37	3.52	4.59	3.64	4.22	4.06	4.37	3.61
3. Milling Results :												
(a)	Added water percent fibre	...	128.5	132.5	133.1	142.9	132.7	128.7	129.1	111.2	139.8	132.5
(b)	Added water extracted in Mixed juice percent added water	...	...	...	...	...	...	...	...	...	...	...
(c)	Sugar % bagasse	...	66.37	65.46	71.92	73.24	71.77	77.00	83.72	69.15	75.27	69.95
(d)	Water % bagasse	...	2.94	3.08	2.93	2.75	3.15	3.67	3.15	3.55	4.05	3.09
(e)	Mill Extraction	...	49.11	48.70	47.27	46.57	44.40	47.81	48.59	47.29	50.29	47.94
(f)	Lost Juice % fibre	...	91.60	91.26	91.70	91.89	92.33	92.82	92.32	90.06	91.51	91.67
(g)	Reduced Mill Extraction	...	50.63	48.80	41.70	36.67	41.56	47.13	49.21	54.23	62.44	44.39
(h)	Reduced Mill Extraction	...	92.77	93.03	94.04	94.76	94.06	93.27	92.97	92.25	91.08	93.66

Table No. 113 (Contd.)

4. <i>Sugar Balance (Sugar in M. J.—100):</i>														
(a) Commercial sugars	...	...	86.87	88.32	87.85	88.69	87.29	86.76	89.60	86.74	86.09	83.14	87.35	87.35
(b) Press cake	...	...	0.61	0.83	1.01	0.81	0.88	1.04	0.84	0.74	0.77	1.34	0.89	0.89
(c) Final Molasses	...	...	11.51	9.55	10.13	9.77	10.59	11.76	8.72	12.07	11.99	12.39	10.16	10.16
(d) Unknown	...	...	1.01	1.30	1.01	0.73	1.24	0.44	0.84	0.45	1.15	3.13	1.60	1.60
5. <i>Boiling House Results:</i>														
(a) Mixed Juice Purity	...	...	75.93	80.47	80.83	82.73	81.95	79.27	85.09	79.97	77.99	81.18	81.55	81.55
(b) Clarified Juice Purity	...	...	76.96	82.31	81.67	83.82	83.64	76.81	85.82	80.27	77.55	81.05	82.50	82.50
(c) Final Molasses Purity	...	...	31.53	31.20	31.17	33.84	35.96	32.29	33.74	34.10	32.16	36.10	33.37	33.37
(d) Boiling House Extraction	...	...	86.87	88.32	87.85	88.69	87.29	86.76	89.60	86.74	86.09	83.14	87.35	87.35
(e) Reduced Boiling House Extraction	...	...	92.69	91.51	90.96	90.45	89.82	91.07	89.52	90.66	91.31	87.16	90.13	90.13
6. <i>Overall Results:</i>														
(a) Overall Extraction	...	...	79.57	80.49	80.17	81.33	80.21	80.11	83.17	80.08	77.53	76.08	80.07	80.07
(b) Reduced Overall Extraction	...	...	85.99	85.13	84.96	85.06	85.11	85.66	83.50	84.29	84.23	79.39	84.42	84.42
7. <i>Consumption of extra fuel % cane:</i>														
(a) Coal	...	...	1.33	0.513	0.214	0.320	0.316	0.575	0.453	0.606	2.268	0.249	0.442	0.442
(b) Firewood	...	...	2.46	0.937	0.558	1.240	0.473	4.412	0.801	1.973	2.833	2.394	1.013	1.013
8. <i>Consumption of stores:</i>														
(a) Lime percent cane	...	...	...	0.194	0.176	0.190	0.220	0.245	0.221	0.124	0.224	0.250	0.196	0.196
(b) Limestone percent cane	...	...	4.870	3.624	...	3.730	4.190	...	...	...	3.420	...	3.980	3.980
(c) Coke percent cane	...	...	0.46	0.371	...	0.380	0.437	...	...	...	0.350	...	0.407	0.407
(d) Sulphur percent cane	...	...	0.025	0.053	0.061	0.064	0.056	0.064	0.068	0.033	0.055	0.061	0.057	0.057
(e) Filter cloth in sq. yds. per 100 mds. cane	...	...	0.350	0.191	0.135	0.170	0.208	0.198	0.193	0.105	0.238	0.062	0.175	0.175
(f) Lubricants in gallons per 100 mds. cane	...	...	0.240	0.164	0.143	0.160	0.108	0.190	0.106	0.141	0.191	0.114	0.147	0.147

Table No. 114  
COMPARATIVE RESULTS FOR INDIAN UNION AND FOREIGN COUNTRIES

Sl. No.	Technical Data	1949-50																			1948																			1947																			1946																			1945																			1944																			1943																			1942																			1941																			1940																			1939																			1938																			1937																			1936																			1935																			1934																			1933																			1932																			1931																			1930																			1929																			1928																			1927																			1926																			1925																			1924																			1923																			1922																			1921																			1920																			1919																			1918																			1917																			1916																			1915																			1914																			1913																			1912																			1911																			1910																			1909																			1908																			1907																			1906																			1905																			1904																			1903																			1902																			1901																			1900																			1899																			1898																			1897																			1896																			1895																			1894																			1893																			1892																			1891																			1890																			1889																			1888																			1887																			1886																			1885																			1884																			1883																			1882																			1881																			1880																			1879																			1878																			1877																			1876																			1875																			1874																			1873																			1872																			1871																			1870																			1869																			1868																			1867																			1866																			1865																			1864																			1863																			1862																			1861																			1860																			1859																			1858																			1857																			1856																			1855																			1854																			1853																			1852																			1851																			1850																			1849																			1848																			1847																			1846																			1845																			1844																			1843																			1842																			1841																			1840																			1839																			1838																			1837																			1836																			1835																			1834																			1833																			1832																			1831																			1830																			1829																			1828																			1827																			1826																			1825																			1824																			1823																			1822																			1821																			1820																			1819																			1818																			1817																			1816																			1815																			1814																			1813																			1812																			1811																			1810																			1809																			1808																			1807																			1806																			1805																			1804																			1803																			1802																			1801																			1800																			1799																			1798																			1797																			1796																			1795																			1794																			1793																			1792																			1791																			1790																			1789																			1788																			1787																			1786														
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| 1097 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1096 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1095 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1094 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1093 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1092 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1091 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1090 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1089 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1088 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1087 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1086 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1085 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1084 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1083 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1082 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | 1081 |  |  |  |  |  |  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# LIST OF PAPERS PUBLISHED BY THE SUGAR TECHNOLOGISTS' ASSOCIATION OF INDIA, KANPUR DURING 1950 AND 1951

## The 19th Annual Convention 1950—Part I

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## Chapter XXI

### DISPOSAL OF BYE—PRODUCTS

The important bye-products of the sugar industry are (1) bagasse (2) Press-mud and (3) Mossasses. The main use of bagasse is as fuel. Factories with efficient boilers, furnaces and efficient boiling house equipment save some bagasse which they use as fuel in the off-season and during the early part of the next season. A few factories sell their surplus bagasse for making straw board and cattle feed. Press-mud is generally used for filling ditches and in some cases the sulphitation press-mud is utilised as manure. Some use it as fuel. Efforts have also been made to extract cane wax from press-mud on commercial scale. Molasses is the most important bye-product of sugar industry and is mainly utilised for the manufacture of alcohol and tobacco curing. In India about a dozen distilleries are making use of it for the production of power alcohol. Efforts have also been made to produce Butyl Alcohol and acetone from molasses on a commercial scale. The following table shows the above at a glance.

<i>Bye Products</i>				<i>Average production</i>	<i>How utilised</i>
Cane trash	...	...	...	10%	Paper Board and Packing Paper.
Bagasse	...	...	...	32-34%	(1) Cattle feed. (2) Straw Board and Paper. (3) Activated Carbon. (4) Manufacture of Cellulose.
Press-Mud	...	...	...	2 to 3%	(1) Fuel. (2) Manure and Fertiliser. (3) Cane wax (from Sulphitation press-mud) (4) Dye stuff & filter aid. (5) Metal Polish and Calk
Molasses	...	...	...	35%	(1) Ethyl Alcohol. (2) Butyl Alcohol and Acetone. (3) Tobacco curing. (4) Cattle feed. (5) Manure. (6) Fuel. (7) Lactic Acid. (8) Food Yeast.

## 1. CANE TRASH

(a) It has been estimated that the quantity of cane-trash removed at the time of harvesting ranges between 24 and 33 per cent of the weight of cane harvested every year. Chemical analysis of the tops and leaves of cane has shown that in a crop of 30 tons of cane, there should be 49 lbs. of nitrogen, 10 lbs. of  $P_2O_3$ , and 100 lbs. of  $K_2O$ . In areas where there is adequate rainfall, conversion of cane trash into manure by allowing it to rot in the fields and then ploughing it under, will greatly enrich the soil and help in securing higher yields of sugarcane. But where rainfall is not sufficient, the cane-trash can be turned into a good compost by mixing it with cow-dung. The Agricultural Department of the States should take steps to ensure the use of cane-trash for purposes of manure instead of allowing it to be burnt as it results in the loss of valuable organic manure.

(b) Other directions in which cane-trash can be profitably used, are (i) hydrolysis of the cellulosic material in cane-trash and its conversion into alcohol, (ii) manufacture of decolourising carbon; and (iii) manufacture of paper. It is understood that the Walchandnagar Industries, Ltd., have recently installed a plant, the first of its kind in the country, for the manufacture of paper from cane-trash. The sugar industry should develop such by-product and where necessary, take the technical advice and assistance of the Council of Scientific and Industrial Research and the Indian Institute of Sugar Technology.

## 2. BAGASSE

The quantity of bagasse available in the sugar factory is about 35 percent of the cane crushed. This consists approximately of 50 per cent moisture and varying percentage of sugar, depending on the efficiency of milling. This is primarily a cellulosic material containing various quantities of lignin silica, ash, fats and waxes. Bagasse-screenings can be used as an additional cattle-feed. But in addition to its being used as fuel, successful commercial use has been found for bagasse in the U. S. A., Australia and Formosa, namely, for the manufacture of "celotex" or building-board. Such manufacture of "building-board" can also be developed successfully in this country. The building-board made from bagasse has great insulation properties and in addition has sound absorption quality as well. Besides, the possibility of developing an internal market for such boards, it should also provide an export outlet as quite a larger quantity of building-board is purchased by U. K. and other European countries. Bagasse has also been found suitable for the manufacture of wrapping paper and straw-board in admixture with other fibrous materials. The improved varieties of Indian cane grown at present have high fibre content and it should be possible for sugar factories to have surplus bagasse at the end of every cane season, which can provide sufficient raw material for the manufacture of building-board, paste-board, paper and alpha-cellulose. The success of these new lines of development will depend upon research which should be undertaken by the sugar industry under the advice and guidance of the Indian Council of Scientific and Industrial Research.

## 3. PRESS MUD

(a) Under good working conditions, the amount of "press mud" or "press-cake" produced is between 1.25 to 1.75 per cent of the cane crushed. The cake contains between 60 and 70 per cent of moisture. Its composition on the dry basis is as under:

Fibre	...	...	...	...	...	...	30 per cent to 40 per cent.
Elbuminoids	...	...	...	...	...	...	10 per cent to 15 per cent.
Calcium phosphate	...	...	...	...	...	...	10 per cent to 15 per cent.
Soil	...	...	...	...	...	...	10 per cent to 15 per cent.
Cane wax	...	...	...	...	...	...	20 per cent to 30 per cent.

Thus for a sugar factory crushing 800 tons of cane per day, there would be about 12 tons of press-cake to be disposed of every day. It will be evident from the above composition that an ingredient of commercial value in the press cake is cane wax. Research work carried out at the Indian Institute of Sugar Technology, Kanpur, has proved the possibility of commercial extraction of cane-wax, which, after refining gives a product comparable to imported carnauba wax, used in the manufacture of boot polish. The Ravalgaon Sugarcane Farm Ltd., has developed this industry of extracting wax on a commercial scale.

(b) The almost universal use, to which press mud is being put in the different sugar producing countries of the world, is for manuring the cane fields. In some countries, its value for manuring purposes is considered to be so high that it is made into a "slurry" with the addition of water and pumped directly to the cane fields. The Indian Institute of Sugar Technology has carried out experiments for a number of years in this matter and has standardised a method for the manufacture of compost from press mud and cane trash in the factory premises. The figures given below show the quantities of cane-trash and filter press cake which are normally available in the sulphitation sugar factories in the country and which can be turned into compost:—

	U. P. (Tons)	Bihar (Tons)	India (Tons)
Cane-trash	57,500	23,000	98,000
Filter-press-cake	1,42,750	57,000	2,45,000
Dry matter in cake	57,500	23,000	98,000

It is well known that press mud, besides containing valuable nitrogen and organic matter, contains appreciable quantities of phosphates and potash and consequently the compost prepared from press mud also contains these ingredients. (Tariff Board Report, 1950).

#### 4. MOLASSES

Besides being used in the manufacture of power alcohol the other uses to which molasses can be profitably put at the present time are (i) conversion into edible molasses (ii) acetic acid manufacture, and (iii) cattle feed.

(i) *Conversion into edible molasses*—It has been found that molasses are a wholesome food. Apart from the energy equivalent of their carbohydrate content, the use of molasses as food has a beneficial effect upon digestion. The consumption of edible molasses in U.S.A. is estimated

to be over eight million gallons per year. The process consists in a suitable admixture of the first and second molasses and then subjecting it to cold storage before packing. We have been informed that in U. S. A. edible molasses are solidified and sold as "molaska" for the confectionery and the canning industries.

(ii) *Acetic acid manufacture*—The manufacture of acetic acid and particularly,acial acetic acid from molasses has possibilities in view of the development of the Indian film and rubber industries.

(iii) *Cattle feed*—The Tariff Board of 1938, examined the working of the Indian Molasses Exporting Co. of India; and found that Indian molasses were being exported to U. K. and chiefly utilized there for the manufacture of industrial alcohol, yeast, and cattle feed. At the present time there is world-wide shortage not only of food-grains but also of cattle feed. Experimental work in India and abroad has shown that molasses are a highly nutritive food for the cattle. It may be mentioned that the use of molasses for cattle feeding are much higher than in India. Thus, U. S. A. utilizes over 75 per cent molasses, Europe over 34 per cent and Australia over 28 per cent of their annual production of molasses for cattle feeding purposes alone. There is, therefore, no reason why such use of molasses cannot be developed under Indian conditions where the cattle population suffers from chronic under-nourishment. Experiments at the Indian Institute of Sugar Technology, for the last seven years have confirmed the experience of other countries in this respect. A mixture of two parts of molasses with one part of bagasse screenings was prepared at the Institute and subject to elaborate feeding tests at a number of animal nutrition centres, such as Bangalore, Patna, Naini, Mukteshwar, Izatnagar, Lyallpur and Karnal; and we understand that the experiments have proved the high value of molasses as cattle feed. The general conditions, milk yield, and the working capacity of the animals fed on bago-molasses were reported to be satisfactory and the feed was found equivalent to gram husk and much superior to wheat bhusa as regarding starch equivalent. There is, however, a limit to the quantity of bago-molasses which may be fed to cattle. The maximum fixed for an animal of 500 lbs. weight is 4 lbs. a day. The feed is deficient in proteins and has to be supplemented by proteinous feeds. Taking into consideration the cattle population of U. P. alone (viz. 43 millions) and assuming that 4 lbs. of bago-molasses are given in the daily ration per head of cattle, it will be possible to utilize the entire annual production in the country in about 10 days' time by this method. Apart from their carbohydrate content, molasses are valued as a cattle feed because of their palatability and general good effect on the digestive system.\*

(\* Vide Tariff Board Report, 1950)

#### POWER ALCOHOL INDUSTRY

*Number and installed capacity of power alcohol factories*—(a) There are at present 14 distilleries in the country producing power alcohol, with a total installed capacity of 9.5 million gallons per annum, as shown in the following table :—

Table No. 115

*Power Alcohol Distilleries in India*

State	Name of the distillery	Location	Annual installed capacity in bulk gallons
U. P. ...	1. Daurala Distillery and Chemical Works.	Daurala.	9,20,000
	2. The Central Distillery and Chemical Works Ltd.	Meerut Cantt.	5,28,000
	3. The Ajudhia Distillery (Moradabad)	Raja-ka-Sahaspur.	5,28,000
	4. The Simbhaoli Industries Ltd., Meerut.	Simbhaoli.	5,28,000
	5. The Shamli Distillery and Chemical Works.	Shamli.	6,00,000
	6. The Narang Industries (Distillery) Ltd.	Nawabganj.	5,28,000
	7. The Shankar Distillery and Chemical Works.	Captainganj.	12,16,000
	8. The Oudh Sugar Mills Ltd.	Hargaon.	7,20,000
	9. The Hindustan Sugar Mills.	Golagokarannath.	8,10,000
	*10. The Kesar Sugar Works Ltd.	Baheri (Bareilly).	8,10,000
		Total (U. P.)	71,88,000
Bihar ...	11. The S. K. G. Sugar Works Ltd.	Mirganj.	5,40,000
Rampur ...	12. The Rampur Distillery and Chemical Works Ltd.	Rampur	3,00,000
Hyderabad ...	*13. The Hyderabad Construction Co. Ltd.	Shakarnagar.	9,00,000
Mysore ...	*14. The Mysore Sugar Co. Ltd.	Mandya.	5,40,000
		TOTAL	94,68,000

\*The Distilleries having imported plants.

(b) Four new power alcohol distilleries mentioned below which were under construction have either started to work or are expected to work by the end of 1951 :—

State	Name of Distillery	Location	Annual installed Capacity in bulk gallons
Uttar Pradesh	Saraiya Distillery.	Sardarnagar.	14,40,000
Bihar ...	The Bihar Sugar Works.	Pachrukhi.	4,50,000
Bombay ...	The Government Central Distillery.	Nasik Road.	9,00,000
PEPSU ...	Jagatjit Distillery and Allied Distilleries Ltd.	Hamira.	10,00,000
TOTAL			36,90,000

Apart from the four factories mentioned above, there are also proposals for establishing three other power alcohol distilleries in the Madras State.

### PRODUCTION OF POWER ALCOHOL

In spite of the present installed capacity of about 9.5 million gallons in the country, the highest production of power alcohol has been 3.10 million gallons only per annum. This lag in production can be traced to inadequate and irregular supply of molasses as also of coal, and to delay in the disposal of stocks of alcohol. The result has been that in most cases, the distilleries have not been able to work for more than 150 to 200 days in a year and the cost of production has, consequently been high. Another reason for the low level of production of power alcohol is the lack of storage arrangements for molasses both at the sugar factories and in the distilleries. The quality of molasses supplied by the sugar factories to power alcohol distilleries, is therefore, not satisfactory and the distilleries have been getting a yield of only 1.7 gallons of power alcohol against the standard yield of 2.1 gallons from one maund of molasses. It has also been alleged that the sugar factories have been diluting their molasses, thereby increasing the quantity and consequently, weight, so as to increase their realisations on sales of such molasses. Such dilution renders the molasses unfit for distillation. The distilleries, therefore, prefer to produce a large percent of lower spirits which fetch a much higher price than power alcohol. The unsatisfactory manner in which the power alcohol industry has been working in U. P. for the last few years will be evident from the above.

### FUTURE DEVELOPMENT

The Government of India have fixed a production target of 10 million gallons of power alcohol for 1950, which would roughly consume about 1.66 lakh tons of molasses. Government expect the production to increase to 23.6 million gallons in the next five years, the distribution among the States of such production being as shown in the following Table:—

Table No. 116

States							Target fixed for five-year period ending 1953 (in million gallons)
1.	Uttar Pradesh	...	...	...	...	...	12.0
2.	Bihar	...	...	...	...	...	4.5
3.	West Bengal	...	...	...	...	...	1.5
4.	Madras	...	...	...	...	...	1.0
5.	Bombay*	...	...	...	...	...	2.5
6.	Punjab (I)	...	...	...	...	...	0.5
7.	PEPSU	...	...	...	...	...	0.5
8.	Mysore	...	...	...	...	...	0.6
9.	Hyderabad	...	...	...	...	...	0.5
Total							23.6

\* Includes merged States.

There is every prospect of this target being realized in view of the fact that the present installed capacity along with the future plans for expansion when they materialise will work out to 23.60 million gallons as will be seen from the following figures:—

	<i>Million gallons</i>					
Present installed capacity of distilleries	...	...	...	...	...	9.47
Capacity of distilleries under construction	...	...	...	...	...	3.69
Capacity of distilleries planned	...	...	...	...	...	10.44
Total						23.60

This level of production when attained will be able to consume about 3.91 lakh tons of molasses. It may be expected that with gradual, nationwide prohibition, the molasses and mohwa flowers as well as other sources of alcohol at present used for beverage production will be turned to the production of industrial alcohol, in the various Provinces and States of India.

## **Chapter XXII**

### **ACTIVITIES OF SUGAR ORGANISATIONS**

#### **I. INDIAN CENTRAL SUGARCANE COMMITTEE**

The Indian Central Sugarcane Committee did not start from scratch but it took over from the Indian Council of Agricultural Research the responsibility for sugarcane research in India and of advising the Central, Provincial and State Governments on matters relating to the improvement of the Sugarcane Industry and its subsidiary industries, as well as, for the maintenance of the Indian Institute of Sugar Technology and the technological schemes running under that Institute.

By resolution No. F 41-24/43-A dated the 6th June, 1944 of the Government of India, in the Department of Education, Health and Lands, the Indian Central Sugarcane Committee was constituted as a registered society under the Registration of Societies Act (XXI of 1860) and was inaugurated on the 29th November, 1944.

#### **GOVERNMENT GRANTS**

The Government grants are the principal revenues of the Committee though small receipts also accrue from the working of the experimental sugar factory at the Indian Institute of Sugar Technology and the crop grown at the Bhadrak Farm, Lucknow.

To begin with, the Government had decided to continue to place at the disposal of the Committee the entire proceeds of the Sugar Excise Fund which was credited at As. -/1/- per cwt. of white sugar produced in India, out of the Excise Duty levied on it. Any increase in the grant which was deemed necessary was to be considered later. The statement given below would clearly indicate that the increasing activities of the Committee could not be fully met with from the Sugar Excise Fund which on an average brought nearly Rs. 10-12 lakhs annually. The Committee, therefore, approached the Government of India for a substantial increase in its funds which were really on war-time basis and the Indian Tariff Board has been recommending repeatedly since 1947 that the Central Government grant to the Indian Central Sugarcane Committee of As. -/1/- per cwt. of white sugar from the Excise Duty should be increased to at least As. -/4/- per cwt. of white sugar. For the year 1947-48 the Central Cabinet, approving the recommendations of the Indian Tariff Board, sanctioned the grant accordingly but for the year 1948-49 the grant was reduced again as on the old basis and for the year 1949-50 no grant was sanctioned, though after the Committee had strongly urged that no future work could possibly be planned under the conditions, the Government of India decided to pay the 1949-50 grant in two equal instalments along with the 1950-51 and 1951-52 grants respectively. The increasing activities and magnitude of the Commitments of the Committee will be apparent from the figures given below :—



**EXPENDITURE INCURRED BY THE INDIAN CENTRAL SUGARCANE  
COMMITTEE DURING THE PERIOD 1944-45 TO 1949-50**

	1944-45 (Part)	1945-46 (3 years)	1948-49	1949-50
	Rs.	Rs.	Rs.	Rs.
A. Grants for Research:				
1. Agricultural Research Schemes ...	...	9,78,510	4,29,760	6,97,617
2. Technological Schemes ...	...	1,56,079	69,971	89,427
B. Grants for the maintenance of the Indian Institute of Sugar Technology ...	22,944	13,24,953	6,20,508	6,61,869
C. Grants for subsidising current development schemes ...	...	4,36,841	Nil.	Nil.
D. Administration of the Indian Central Sugarcane Committee ...	9,954	2,87,816	1,48,024	1,55,883
E. Miscellaneous ...	...	68,448	39,015	6,008
<b>Total Expenditure ...</b>	<b>32,898</b>	<b>32,52,647</b>	<b>13,07,278</b>	<b>16,10,804</b>
I. Special grant for the Provincial Development Schemes ...	...	68,977	7,50,642	10,14,336
II. Special grant for the Bhadrak Research Insti- tute Purchase of Farm ...	...	10,67,398	...	...

The Committee is committed to an annual expenditure of over Rs. 18 lakhs for the succeeding year 1950-51, from its annual grant besides the setting up of a Central Sugarcane and Sugar Research Institute at Lucknow from its special grant, etc. The need of such a Central Institute, where agricultural and technological research connected with Sugarcane and Sugar is to be conducted is most vital. Some funds are available for this work, partly in the form of a special grant of Rs. 50 lakhs made by the Government of India and partly from the unused balances from the previous years already in the hands of the Committee, which it has earmarked for the purpose. The foundation stone of the Institute has been laid by Shri K. M. Munshi, Union Food Minister on Feb. 16, 1951.

#### 5-YEAR DEVELOPMENT SCHEMES

The 5-year schemes for the development of the Sugarcane Industry launched in the various States under the auspices of the Indian Central Sugarcane Committee, continued to progress satisfactorily. The Madhya Pradesh Scheme was closed down by the State Government in December, 1949, as a measure of financial stringency. For the same reason, the Assam Government did not initiate their schemes. The Bihar Government have not submitted any

proposal for the Irrigation part of their scheme although Rs. 9 lakhs out of the total of Rs. 12 lakhs have been earmarked by the Committee for this purpose. It is not understood how the State Government can attain its targeted increase of 66 per cent over the present average yield within the specified period of 5 year if the important factor of providing adequate irrigation facilities is neglected at this stage.

Special stress has been laid in these schemes to the provision of (1) adequate irrigation facilities, (2) seed nurseries for the supply of adequate quantities of disease-free and improved varieties of seed (3) adequate manures and fertilizers of the right types, (4) Employment of qualified personnel to carry the results of research to the cane growers, (5) efficient Watch and Ward services for protection of the crop against pests and diseases, (6) Zonal centres, and (7) soil extension services.

Before these schemes were sanctioned by the Committee the State Governments had stipulated that the average acre yields of cane, as a result of the Development work, would increase to the following extent.

Provinces				Present Average yield per acre	Expected acre yields at the end of the Dev. Scheme Period	Percentage of increased yield
				Tons	Tons	%
1. Uttar Pradesh	...	...	...	12.5	25.0	100
2. Bihar	...	...	...	12.0	20.0	66
3. West Bengal	...	...	...	18.0	22.5	25
4. Punjab (I)	...	...	...	12.5	18.0	44
5. Bombay	...	...	...	40.0	44.0	10
6. Madras	...	...	...	25.0	30.0	20

The Special attention of the Governments concerned and of their workers is drawn to these targets and they are requested to see that in the National interest of the country they must leave no stones unturned to achieve these targets. The huge expenditure involved must be fully justified. It is known that the present average yield of cane for India as a whole is only about 14 tons or less per acre and this has to be stepped up substantially in order to make India self-sufficient in sugar and enable her to affect a substantial reduction in the cost of production of cane and sugar. At present the cost of sugarcane contributes 60 per cent or more to the cost of sugar and unless the production cost can be minimised it will be impossible to cheapen Indian Sugar.

#### 14TH MEETING OF THE INDIAN CENTRAL SUGARCANE COMMITTEE

The 14th meeting of the Indian Central Sugarcane Committee was held at New Delhi on the 26th and 27th February, 1951 under the Presidentship of Shri Dip Narain Sinha. The Hon'ble Shri K. M. Munshi, Minister for Agriculture and Food, addressed the meeting on February 27, 1951.

Main points from the speech of Shri Dip Narain Sinha are reproduced here :—

(1) The Government of India have placed the Sugarcane Breeding Station at Coimbatore under the technical control of the Committee, while retaining its administrative control. This dual control cannot conduce to the efficiency in working and output.

(2) The Bhadrak Institute of Sugarcane Research and Sugar Technology remained at the same stage as was left last year due to the financial stringency. This was a serious set-back to the Committee.

(3) The normal grant of the Committee has been denied on this plea that the Committee has certain reserves. But the so-called reserve is locked up in the shape of Government securities and is not readily available. This step-motherly treatment in the matter of making grant will not straighten the State of affairs.

(4) It was distressing that Government of India have been trying to import sugar in view of the fact that installed capacity of Indian factories is capable of producing over 12 lakh tons of sugar. A concerted effort on the part of all interested is called for.

(5) The *ad hoc* decisions of multiple agencies in respect of prices and concessions to the industry cannot lead to permanent solution of the problem. It requires all-India planning.

(6) The main problem of the industry continues to be the problem of raising acre-yields of high quality raw material and this problem is linked up with provisions of wherewithals to the cultivating interests. The need for Central co-ordination by a very senior and experienced officer cannot be too much emphasized.

#### EXTRACTS FROM THE SPEECH OF SHRI K. M. MUNSHI, MINISTER FOR FOOD AND AGRICULTURE

(1) Eastern U. P. and Southern Bihar are two zones which are in a very precarious condition and unless they are given more and good sugarcane, a number of them may go into liquidation. The help of co-operative societies and greater facilities to the mills are required.

(2) In Western U. P. there is a dangerous competition between gur manufacturers and sugar factories for getting enough cane. Due to the high prices of gur and khandsari, growers are inclined to supply enough sugarcane to factories. This constant dispute or rivalry between the two is assuming almost the proportions of a National danger.

(3) Demand for higher and higher prices of cane in the Meerut Area is on the increase.

(4) There are three solutions to the struggle between sugar and gur.

(a) Each industrial unit may be given a farm sufficient to produce its own sugarcane but the pressure on land in U. P. and Bihar is already too much.

(b) A small factory zone may be set up round each factory and no jaggery and no by-products are allowed to be produced in that area.

(c) To license the kolhus (but ultimately it had to be abandoned.)

(5) These three solutions are not available in U. P. Rationalization will have to step in and shifting of some factories to other places in southern area, which are rich in the sugar content of cane, may be taken up. But it is a costly affair, involving 10 to 15 lakhs of rupees to each factory and will also affect the growers in northern parts to a large extent.

(6) Co-operative Societies are looking after improvement in the variety of cane which they should do. In Bihar, there is an obligation on the factory to take all the cane that is supplied, but there is no corresponding obligation on the part of factory to demand all the cane grown in its reserved area.

(7) Government propose bringing all the Commodity Committees in the Indian Council of Agricultural Research.

(8) Owing to the stringent finances of the Government, it was not possible to revise the research grant to the Committee @ Rs. 0-4-0 per cwt.

### **RESOLUTION MOVED BY DR. PUNJAB RAO DESHMUKH AND PASSED BY 14TH MEETING OF THE ICSC**

"Inasmuch as the policy of Government with regard to sugar has a direct bearing on the cultivation of sugarcane the prices paid to the agriculturists and the profits made by the manufacturers and in view of the fact that the Government should be duly informed of the manner and extent to which various interests are likely to be affected as a result of the pursuit of any particular policy.

"And whereas the ICSC is charged with the duty of looking after and advancing the interests of not only the Sugar Industry but the cultivation and improvements of sugarcane.

"This Committee is, therefore, strongly of opinion that the Government should associate and obtain the advice of its Finance and Executive Sub-Committee in all important questions connected with the formulation of Governments' policies with regard to production, distribution, marketing, control and improvement of sugarcane and sugarcane products."

### **II. INDIAN SUGAR MILLS ASSOCIATION—18TH ANNUAL MEETING**

Delivering the Presidential address at the 18th Annual General Meeting of the Association held on the 13th January, 1951 at New Delhi, Lala Hariraj Swarup, brought out the following main points:—

(1) Need for the self-sufficiency in food and sugar in view of the critical world situation.

(2) Difficulties besetting the achievement of target for sugar production—The failure to achieve the target of 11 lakh tons of sugar during 1949-50 has been mainly due to the large-scale diversion of cane to gur and khandsari whose prices, as a direct result of control over sugar, gradually rose to such levels that there was a tendency on the part of cane growers to divert their care to gur and khandsari manufacture.

(3) Necessity of stricter control on gur and khandsari prices, and their movement by rail, road and river to be restricted.

(4) Large quantities of gur going into illicit distillation in areas under prohibition—Investigation needed.

(5) In view of the serious competition from gur manufacturers, factories in West U. P. faced with prospects of losses due to lower crush and interrupted working—Revision of price and grant of subsidy to West U. P. factories stressed.

(6) Appreciation by the Industry of the partial decontrol of sugar.

(7) Uninformed and unfounded criticism of the Industry not justified by facts.

(8) Burden on industry increased due to Justice Sinha's award in Bihar and Justice Bind Basni Prasad's award in the U. P. in regard to leave, bonus and retainer, etc. and ill-conceived imposition of sales tax on sugarcane in Bihar, the latter increasing the cost price by -/8/6 per maund of sugar.

(9) Tariff Board recommendation's of 1950 not applicable to actual conditions now prevailing. None of their presumptions has been realised.

(10) So long as the control is there, there is a need to fix sugar price based on all items of cost and leaving a fair margin of profit to the industry.

(11) Concession on long distance cane demanded by allowing deductions from the minimum cane price to cover additional transport charges.

(12) Prospects of producing cheap sugar wholly dependent on ability to improve the yield of cane per acre and also its sucrose content.

(13) Importance of cane development stressed. Collection of over 17 crores of rupees from cane cess by the Governments of U. P. and Bihar but expenditure on cane development very negligible portion of the total. Need for reducing the rate of cane cess.

(14) Necessity and urgency of planning in Sugar Industry in order to enable the Industry to produce sugar to its annual installed capacity of 15 lakh tons.

The resolutions passed at the above meeting of the Association are given below :—

## 1. MAXIMISATION OF PRODUCTION

“In view of the prevailing scarcity of sugar in the country and the difficulty in importing sugar, this Association welcomes the self-sufficiency plan of the Government under which it is proposed to make the country self-sufficient in respect of all the essential agricultural commodities including sugarcane so as to step up sugar output to 12 lakh tons in the next two years and extends its most willing and loyal co-operation to the Government in their above endeavour. This Association is of the considered opinion that the target production of 12 lakh tons by the sugar industry is capable of realisation particularly as the industry has an annual rated capacity of about 15 lakh tons and has produced over 12 lakh tons in the past. This association, however, considers that the following steps are necessary for ensuring the target production of sugar :

1. Effective control over prices of gur and khandsari through control on their movement by rail, road and river or by introducing monopoly purchase system.

2. Remission of cess on rail borne cane by the State Governments as an encouragement to factories to crush long distance cane and thereby increase production.

## 2. CANE-CESS AND CO-OPERATIVE SOCIETIES' COMMISSION

"This Association strongly endorses the recommendation made by the Indian Tariff Board 1950 that cane cess collections should be utilised exclusively on development work to bring about rapid improvement in the yield and the sucrose content of cane. Further, that the factories in the U. P. and Bihar should not be required to pay commission to the Cane Co-operative Societies separately and that they should be financed out of the cane cess proceeds. This Association attaches great significance to the above recommendations of the Board as they have a vital bearing on the future development of the industry and it, therefore, urges upon the Government of India and the various State Governments concerned to implement the above recommendations of the Tariff Board without delay."

## 3. SALES TAX ON CANE IN BIHAR

"This Association strongly protests against the action of the Bihar Government in levying sales tax on cane crushed by the factories in the State, specially when sugar is already subject to State sales tax. Moreover, factories in the State are also paying cane cess at the high rate of -/3/- per maund. Such heavy taxation on the basic raw material of the industry is unknown to any other industry in this country or elsewhere and, therefore, wholly unjustified. This Association, therefore, urges the Bihar Government to reconsider this matter and exempt cane consumed in sugar factories from the payment of the State sales tax."

## 4. CANE DEVELOPMENT

"Although it has been realised by the interests concerned, viz., the factories, the growers, the State Governments and the Government of India that the increased production of sugar in the country as also any reduction in the cost of production are dependent, in the main, on the success of the development of sugar cane both as regards the yield and sucrose content, this Association regrets that so far no appreciable progress has been achieved in this direction, and in certain areas, the position has actually deteriorated. This Association considers that the following steps are essential for bringing about a rapid development of cane :

1. That the cane development work which has hitherto been in the hands of the Government or the cane development societies in the U. P. and Bihar be entrusted to the factories in their respective zones as they are more vitally interested in the matter and at least one anna out of the cane cess be given to the factories for this purpose to begin with.
2. That the Government of India should increase their contribution to the Sugar Research Fund to -/4/- per cwt. of sugar assessed to excise duty, from the present rate of -/1/-, as recommended by the Tariff Board so as to make available sufficient funds to the Indian Central Sugarcane Committee for carrying on research work and development. Further, the State Governments should also utilise the cane cess collections exclusively for cane development work.

3. That immediate steps should be taken to provide irrigation facilities in the cane growing areas as that is one of the important factors affecting the cane yields most; the cane yields in irrigated areas being double compared to the non-irrigated areas.
4. That factories should be provided with necessary facilities for having their own farms of at least 250 acres for experimental purposes to grow cane with higher sucrose content and of early and late ripening varieties to prolong the season.
5. That immediate steps should be taken to improve the roads in the vicinity of the sugar factories so as to ensure quick movement of cane from the purchasing centres to the mills.
6. That any restriction on the factories to grow food crops in their own farms should be withdrawn.

### 5. GOVERNMENT'S LABOUR POLICY

"While appreciating the well-meant efforts of the Government to improve the lots of workers, this Association desires to invite the attention of the Government of India as also of the various State Governments to the progressive increase in the wage bill of the sugar factories due to grant of various concessions to labour in the form of increased wages, bonuses, etc. While the Association fully appreciates the need for raising the standard of living of the workers, it feels that the concessions required to be granted by the factories must be related to the efficiency of the workers and industry's capacity to pay.

The Association, however, regrets to note that while the Government have prevailed on the industry to grant numerous concessions to labour, they have done little to make the labour realise its responsibility in increasing the production and running the factories efficiently. Furthermore, by preventing the factories to retrench surplus labour with a view to rationalising their plants, Government are going against the unanimous decision of the Central Advisory Council of Industries which consists of representatives of labour, employers and Government that rationalisation and retrenchment should be permitted. Moreover, the Tariff Board 1950 have themselves admitted in their report the existence of surplus labour in sugar factories. The present policy of the Government not to permit retrenchment results in actually forcing the factories to employ surplus labour which is neither conducive to economic production nor industrial efficiency. On the contrary this results in a great national loss. This Association, therefore, urges upon the Government of India and the various Provincial Governments to reconsider their present policy in this behalf."

### 6. DIFFICULTIES OF SUGAR INDUSTRY IN BOMBAY

"While every effort is being made by the Government of India to maximise production of sugar in the country, fresh and heavy burdens, as mentioned below, pressed by the Government of Bombay on the sugar industry in the State are likely not only to defeat this object but to discourage the industry from undertaking any expansion. The fresh impositions during recent years by the Bombay Government are:

1. Very heavy increases in the irrigation rates charged for the supply of water for the raising of sugarcane from February, 1951 and further increases to take effect from

1952, adding to the cost of cultivation of sugarcane and subsequently to that of manufacture of sugar in the State.

2. A tax on the consumption of electric power, which not only puts a fresh burden on progressive factories trying to reduce cost by rationalisation, but gives premium to inefficiency and the use of outmoded processes of manufacture. An enlightened Government should go all out to encourage efforts at improving efficiency and bringing out economy by giving concessions to those factories creating their own electric power and using it.

In view of the shortage of supply of sugar in the country and the need for avoiding increase in the price levels, this Association requests the Government of Bombay to :

1. To suspend the proposed increase in the irrigation rates for the present, and
2. To exempt the sugar factories from the electric tax, because they produce their own power from the waste materials, which if used in steam boilers for running machinery, the power is not taxed, but if utilised for generating electric power for the same purpose, the power so produced is taxed, which on the face of it is very anomalous and objectionable on principle, as it penalises the use of an improved process, designed also to effect a saving in coal for the country."

### REMISSION OF CESS ON CANE GROWN IN FACTORY FARMS

"This Association views with concern that inspite of repeated representations made by the industry the State Governments concerned have been charging cess on cane grown by the factories in their own farms. Cane cess is primarily meant for cane development work and since the factories have to spend substantial amount on development of their farms, there is hardly any justification for charging cess on such cane. The Association, therefore, earnestly requests the Governments concerned to exempt the cane grown by the factories for their own use from the levy of cane cess."

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### III. THE SOUTH INDIAN SUGAR MILLS ASSOCIATION, MADRAS

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This Association continued to work in close co-operation with the Indian Sugar Mills Association, Calcutta. Its membership is 15. In 1950 and 1951 there were no general meetings of this Association but it continued to guard the interests of the factories concerned while negotiating with the State Government in the matter of fixation of cane or sugar prices. The salient points of its Memorandum submitted to Madras Government in this connection are given below.

During the year 1950-51, a cess of 8 annas per ton on sugarcane entering the factory was levied by the Madras Government, payable by the Sugar factories in Madras State.

### SALIENT POINTS OF THE MEMORANDUM DATED 4-11-50

1. This Deputation of Sugar manufacturers is constrained to point out that the Government of India has fixed the sugar price at the same level as in 1949-50 and desires the price of cane to be maintained at the same level.



2. At that level the margin of profit to Sugar manufacturers has been substantially reduced owing to higher manufacturing costs, but in the interests of the consumer the factories were willing to submit to it.

3. The cane grower in the South is relatively better off than his counterpart in the North because of higher yields per acre.

4. The factories in the South are relatively worse off because of lower sucrose content in cane and the higher operational costs arising from the small average capacity of each Unit.

5. It is untrue that the freight advantage has not been passed on in ample measure to the grower and it was demonstrably established that both freight advantage and cess advantage lie with the cane growers of South India.

6. Any stepping up of the cane prices above the level of 1949-50 lead to loss and will put factories out of business, as has been proved at Pugalur during the second season where a high cane price has resulted in loss.

7. The South Indian Sugar Mills Association, therefore, requests that the Government of Madras should not be led away by interested agitation, and that they recommend to the Government of India to fix the cane price not above the level of 1949-50 season.

#### IV. THE DECCAN SUGAR FACTORIES ASSOCIATION, BOMBAY

The 11th Annual General Meeting of the Association was held on the 24th October, 1950 under the Presidentship of Shree K. J. Somaiya who delivered a very illuminating and able speech. The main features of his address are given below:—

(1) The expectations of higher production during the season 1949-50 did not materialise due to the failure of the Bombay Government to implement some of the suggestions made by the Association, which were as below:—

- (a) Increase in the present inadequate supply of water,
- (b) Leaving the growing of foodcrops to the discretion of the factories,
- (c) Encouraging the lift irrigation,
- (d) Removal of restrictions on Adsali plantation, and
- (e) Making over of cane grown within a radius of 10 to 12 miles of the factory compulsorily to the factories for crushing purposes.

(2) The diversion of substantial quantities of cane to the manufacture of khandsari and gur due to the absence of any control on their prices. This has constituted a national loss as the recovery of sugar in khandsari process is only 5 to 6 percent, that is half of that obtained by the sugar factory.

(3) *Transport Charges*—Defining the ex-factory price by the Government in an artificial manner identical with F. O. R. price. This resulted in bearing by the factories the transport and loading charges for a distance of more than 30 miles from the nearest railway station. These charges should have been allowed to the sugar factories.

(4) *Fertilisers and Manures*—The Government being the sole monopolist to import Ammonium Sulphate charged a very high price, i.e., Rs. 340/- per ton from the factories having their own farms as against Rs. 275/- per ton if imported by private individuals. Similarly, in case of groundnut cake, the factories got their supplies from the Government at Rs. 240/- per ton as against their purchase price of Rs. 160/- per ton from the millers. These will have its repercussions on the cost of production of sugar.

(5) *Water Rates*—Proposals of the Government to further increase the existing high water rates. In the year 1945 Government in utter disregard of their assurances increased the water rate from Rs. 45/- to Rs. 60/- per acre. And now they propose the rate further from Rs. 60 to Rs. 90/- per acre. Such measures of the government as the sale of ammonium sulphate, oil cakes and water charges at enhanced rates will definitely tend to increase the cost of production of sugar. The 112" and 124" supply of water for sugarcane is quite insufficient and should be raised to 144" per acre. It will considerably go to increase the yield of sugarcane.

(6) The *Sugarcane cess* on the factories own farm cane is another handicap imposed by the Government. There is no justification whatsoever, moral or legal, for levying cess on sugarcane grown by the factories themselves because the factories invest huge sums of money at their own risk and the Government is not required to develop the farm. Recently a deduction of 2% has been allowed for tops and cane trash by the Government.

The State Government of Bombay have collected so far about a crore and a half by way of cane cess but they have spent only an insignificant amount on cane development.

(7) The compulsion upon the sugar factories to grow food crops upon their lands which could be better utilised for growing sugarcane does not appear to be justified and ill-behoves all those upon whom has fallen the mantle of economic planning.

(8) Decision of the Government to establish half a dozen more sugar factories in the Bombay Deccan out of which two have already got the permission is welcomed.

(9) *Machinery Import*—The Government's present policy of not allowing imports of foreign machinery would lead to increased cost of production. The indigenous machinery is found to be made of bad material and of inferior workmanship and is therefore poor in performance and causes heavier incidence of breakage and wear and tear. But as a result of representation made the Government have realised this and are issuing more import licenses for the machinery required by the sugar industry.

(10) The production of sugar can be increased, even for export if a fair margin of profit is allowed to the factories at the time of fixing the price so as to serve as an incentive to the industrialists.

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## V. INDIAN SUGAR PRODUCERS' ASSOCIATION, KANPUR

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The 39th annual general meeting of the members of the Association was held on the 28th January, 1950 at Kanpur. Mr. A. Caws who was the chairman of the meeting, brought out the following points during his address.

(1) The fall in sugar production during 1949-50 was due to lack of adequate supply of cane. Sugar is made in the field and not in the factory.

(2) Blaming the industry for sugar scarcity in the country was undesirable. He defended the Indian sugar syndicate from the alleged unjustified criticisms.

(3) The solution to the problem of cheap sugar was the increase in yield of cane per acre but the apathy of the government in tackling the problem of cane diseases, etc., apart from issuing a few circulars from Government Departments continues.

(4) He pleaded for the continuance of protection to the Sugar Industry.

## VI. THE BOMBAY SUGAR MERCHANTS' ASSOCIATION

The sixth annual general meeting of the Association was held on 2nd March, 1951 at Bombay. Sheth Maneklal Ujamshi, presiding over the meeting said that merchants were without trade for the whole of the year 1950-51. He charged the Bombay Government with profiteering in sugar distribution. Sugar trade having been taken over by the Govt. has brought the common man to a miserable stage.

Regarding sugar imports, Mr. Ujamshi declared that they had on many occasions drawn the attention of Govt. about its immediate necessity, as the market was rising and any delay in purchase will result in payment of a very high price. Govt. disregarded these suggestions and the result was that the purchase was made at the highest price at a time when sugar was in plenty with the factories. Govt. purchased this sugar through Indian High Commissioner who effected the deal through English brokers. It was highly regrettable that Govt. encouraged foreign firms and ignored the Indian firms.

## VII. SUGAR TECHNOLOGISTS' ASSOCIATION OF INDIA, KANPUR

### SILVER JUBILEE AND 19TH ANNUAL CONVENTION

The Silver Jubilee and the 19th Annual Convention of the Sugar Technologists' Association of India was held at the Indian Institute of Sugar Technology on the 29th, 30th and 31st October, 1950. After the Welcome Speech by Prof. J. M. Saha, Chairman, Silver Jubilee, sub-committee, the inaugural address was delivered by Sir C. V. Raman, Kt. D.Sc., F.R.S. It was a masterly oration by a versatile research genius and was very much appreciated by all those present.

The Presidential address was delivered by Shri Desraj Narang. The salient features of his address are given below.

(1) There is a double dose of Government control in U. P. and Bihar, the only surplus provinces in India. While the Central Government has taken increased powers for the licensing of cane-crushers, issue of licenses to dealers of sugar and gur, fixation of local, wholesale and retail prices, requisition of stocks of gur and khandsari, inspection, search, etc. The Provincial Control Act enable them to appraise cane price, cost of manufacture and profit margin.

(2) The cane price and sugar price fixed for U. P. and Bihar are automatically applied to the rest of India and the data of cost of production, etc., of the latter are ignored. This results in a minimum margin of profit to U. P. and Bihar factories and an advantage to the rest of India between Rs. 3/- to Rs. 4/- per maund over U. P. sugar. Why this disparity in control

operations. Cannot the Central Government devise some measure by which a pooled price could be fixed and adjustment could be made for any higher cost of manufacture. In its absence they should fix regional prices of sugar consistent with local cost.

(3) The Central Government is intending to butt their presence into gur and khandsari making. It is doubtful if it is going to rationalize control in any manner.

(4) The next biggest thing is the withdrawal of protection from the Sugar Industry. He did not agree that the Tariff Board have made as thorough an inquiry into the conditions as in the case of previous Tariff Board enquiry. Why this haste to abolish import restrictions on sugar.

(5) The sugar technologists of India have not made appreciable progress in the past year. The scheme for enabling the sugar chemists to function as cane superintendents or inspectors so as to get permanent service has not made much progress.

(6) The standardization of wages has not yet materialized. The Committee appointed by the U. P. Government is trying to reconcile and standardize various kinds of jobs but the varying crushing capacities of the factories are introducing difficulties.

(7) Power Alcohol and yeast from molasses should be encouraged.

(8) The sugar factories should band together in an association to pool research results. Research could be greatly quickened by affiliating research laboratory to universities who should pay more attention to sugar chemistry and elements of sugar manufacture.

### **SUGAR INDUSTRY EXHIBITION**

A Sugar Industry Exhibition was also organised by the Association. Its opening ceremony was performed by Sir Surendra Singh Majithia, Kt., Managing Director, Saraya Sugar factory, Sardarnagar (Gokarhpur).

### **PROGRESS OF THE COMMITTEE ON NATIONAL REGISTERS FOR CHEMISTS AND ENGINEERS FOR THE SUGAR INDUSTRY**

The Council of the Association decided to prescribe minimum qualifications for different categories of workers upto Pan-man. There would be three categories, first category would be of those who possess the prescribed academic qualifications and possess a certain amount of experience; the second category would be of those who do not possess the same academic qualifications but have acquired efficiency by virtue of very long experience, the third category would be of those who do not possess any qualifications mentioned in categories (1) and (2) but are working in certain categories due to certain considerations. Persons in category (2) may be appointed to category (1) by passing a qualifying test. As Government of U. P. has appointed a Standardisation Committee which will be making recommendation for fixing the salaries for different categories of workers, the council appointed a sub-committee to go into the question and prescribe the minimum qualifications. This Committee was also to propose salaries pertaining to different categories to be submitted to the Standardisation Committee.

## THE SCHEME FOR OFF-SEASON TRAINING OF SEASONAL TECHNICAL STAFF IN SUGARCANE CULTIVATION AND SOIL ANALYSIS

After making great efforts the Association has been able to arrange for the training of factory's technical staff during off-season at Shahjahanpur and Kanpur but sufficient number of candidates were not coming forward for the training. Factories were not sending their men as they consider that the Assistant Cane Development Officer was a qualified person and was good enough for their requirements. It was decided that candidates who are anxious to undergo training and who are fully qualified should write to the Association which would arrange with their factories for the training at full pay.

## INDIAN TARIFF BOARD RECOMMENDS FOR ALL THE YEAR EMPLOYMENT OF TECHNICAL STAFF

The Association had submitted a memorandum to the Indian Tariff Board in November, 1949 requesting a fair deal for technical personnel employed in sugar factories. It was gratifying that the Board made positive recommendations in its report, including the increase of nine pices per maund in the price of sugar to provide employment for the whole year to the technical staff of sugar factories. Shri S. C. Roy's resolution embodying the above was forwarded to the Government of India, State Governments and Mill's Association.

## MEMORANDUM TO THE U. P. STANDARDIZATION COMMITTEE (SUGAR)

The Sugar Technologists' Association of India is grateful to Standardisation Committee for giving it an opportunity to place its case before the Government and hopes that the Committee would be convinced of the genuineness of their case and make an helpful recommendation to Government.

## THE PROBLEMS OF THE TECHNICAL MEN

1. The first and foremost problem before the technical men is the seasonal nature of their employment in the industry.

The technical men concerned are :—

- |                            |                                   |
|----------------------------|-----------------------------------|
| 1. Manager (Technical).    | 7. Shift Engineer.                |
| 2. Chief Engineer.         | 8. Lab.-in-charge.                |
| 3. Chief Chemist.          | 9. Workshop incharge (qualified). |
| 4. Dy. Chief Chemist.      | 10. Laboratory Chemist.           |
| 5. Dy. Chief Engineer.     | 11. Head Pan-man.                 |
| 6. Manufacturing Chemists. | 12. Pan-men.                      |

Except for the Technical Manager, the Chief Engineer, the Chief Chemist and a couple of shift engineers, the rest of the above class of men are not employed on full salary for all the 12 months of the year. They are paid full salaries only for the duration of season which in the last few years, has hardly exceeded four months. For the remaining 8 months they are paid retaining allowance at 50 percent of their full salaries and these too in some cases are not paid every month but at the end of the off-season when the employees concerned join again for the next season. The insecurity of service sometimes goes to the extent that employees who have

worked in the same factory for 10 to 12 seasons are suddenly discharged during the middle of the season on grounds of incompetency. There are, however, some factories where most of the above staff is kept on full salaries throughout the year but such cases are comparatively few and are mostly confined to Bombay, Deccan and South India and a few progressive mill-owners of northern India.

2. The second problem is that their salaries and total emoluments are not commensurate with the present high cost of living and the technical education they possess and the hard and responsible work they have to do in sugar factories during the season.

3. Their 'leave' terms are in most cases much too meagre.

4. General facilities such as quarters, medical attendance, provident fund, good work reward, etc., are in some cases not satisfactory.

The demands of 'technical men' therefore are :—

- (1) Permanent (and not seasonal) employment on full salaries.
- (2) Standardisation of salaries and other allowances, provident fund, bonus, etc., according to skill and experience and due reward for merit.
- (3) Reasonable leave rules.
- (4) Better amenities of residential quarters, medical facilities, etc., and,
- (5) Scope for further education, research & development.

In Java, 15 to 20 percent of the profit of every factory is distributed as bonus among its technical staff. In some cases even coolies who are employed for the season only receive at the end of the season bonuses amounting to as much as a month's wages.

Free medical treatment is provided to all members of the technical staff and their families, except in maternity cases and for dental treatment and operations and even in these cases the cost of the treatment would be paid out of a central support fund provided the employee subscribes half or one percent of his salary to the fund. All technical employees are entitled to free furnished bungalows, water and light and sugar for their requirements from their factories. Employees are entitled to 6 months home-leave every five years in addition to 52 days leave in the year. Of the 52 days leave due to him every year at least 30 days should be taken at one time and spent out of the factory station.

The effect of the unsatisfactory condition of service of technical men is as follows :—

- (a) Lack of proper devotion to their work which is most essential in the processing of sugar every stage of which requires careful control.
- (b) Loss of past experience and intimate knowledge gained of the particular conditions of plant and process obtaining in the previous undertaking (analogy-lack of efficiency in census organisation due to temporary nature of the census staff).
- (c) Loss of opportunities for solving problems requiring sustained effort and thinking.
- (d) A general feeling of frustration.
- (e) Diversion of capable element to more lucrative and stable professions.

(f) Lack of attraction for brilliant men for this industry and consequent lowering down of technical skill and ability.

(g) Lowering down of efficiency and higher cost of production resulting therefrom.

The extent of damage to the industry from the above state of affairs can be easily inferred. It is obvious that the denial of their money's worth to the technical men is false economy.

In view of the above, the Sugar Technologists' Association of India, considers that the scales of pay and dearness allowances for the technical men concerned specified in the attached statement may be accepted.

It will be seen that the total annual cost on account of the salaries (including dearness allowance) of superior technical staff for a 750 tons factory comes to Rs. 1,57,800/-. The incidence of this on the cost of sugar per maund, for 105 days duration and 10% recovery works out to 12 annas 10 pies only which in a sugar price of about Rs. 30/- per maund is indeed insignificant.

The minimum qualifications of the technical men for the different categories of posts have been indicated in column (7) of the attached statement. It will be seen that category (b) mentioned in the statement of qualifications is to provide for such persons as do not possess the desired basic qualifications but have a *locus standii* by virtue of their past experience and service in sugar factories. Fresh recruitment to this category (b) should be discouraged.

It is hoped that the Standardisation Committee will be pleased to recommend not only adequate salaries, but whole year employment and adequate amenities of leave, provident fund, medical aid, living accommodation and educational facilities for the children of sugar factory employees. During the off-season, the Chemists could be usefully employed on soil survey and cane development work which is very important considering that in some areas the yield of cane has definitely gone down and in others it has not gone up or any other research work that the management may like to get from them.

# STATEMENT OF SALARIES FOR TECHNICAL STAFF FOR A 750 TONS SUGAR FACTORY

No.	Category of posts	No. of posts	Scale of pay in rupees	Dearness allowance	Total amount on av. pay for (12 months)	Minimum qualifications.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Manager (Technical)	...	...	1,200-60-1,500 (M.P. 1,350/-)	15%	Rs. 18,630/-	(a) Must have held the post of either Chief Chemist or Chief Engineer for not less than 5 years.
2. Chief Engineer	...	...	800-40-1,200 (M.P. 1,000/-)	20%	14,400/-	(a) Degree in Engineering from a recognised College or University in India or abroad together with experience of not less than 5 years in the line, or (b) Diploma or certificate in one of the branches of Engg. together with specialised training in India or abroad and/or practical experience of not less than 10 years in the line.
3. Chief Chemist	...	...	-do-	20%	14,400/-	(a) Degree in Science of a recognised University together with diploma in Sugar Technology or higher specialised training in sugar manufacture from India or abroad, together with experience of not less than 5 years in the Mfg. Deptt. or (b) Undergraduate (at least Inter Science) possessing diploma or certificate in one of the courses of sugar manufacture together with practical experience of not less than 10 years in the line.
4. Dy. Chief Engineer	...	...	500-25-750 (M.P. 625/-)	25%	9,375/-	Same as in No. 2 except that the experience may be a little less say 3 years for (a) and 5 years for (b).
5. Shift Engineers	...	...	350-25-600 (M.P. 475/-)	25%	21,375/-	(a) Degree in Engg. preferably with some experience or apprenticeship in a sugar factory. (b) Diploma or certificate in Engg. together with practical experience of not less than 5 years in the line.



6. Workshop-Incharge (qualified)	...	1	-do-	25%	7,125/-	Diploma or certificate in Engg. together with practical experience in some reputed workshop or sugar factory of not less than 5 years.
7. Deputy Chief Chemist	...	1	500-25-750 (M.P. 625/-)	25%	9,015/-	Same as in No. 3 except that in category (b) an experience of not less than 5 years is necessary.
8. Manufacturing Chemists or Asstt. Chemists.	...	3	350-25-600 (M.P. 475/-)	25%	21,375/-	(a) Degree in Science together with a diploma in Sugar Technology or specialised training in Sugar manufacture with some experience or apprenticeship in a sugar factory. (b) Graduates in Science or Agriculture having practical experience of working as Mfg. chemist for not less than 3 years.
9. Lab. Incharge	...	1	-do-	25%	7,125/-	Same as in No. 8.
10. Bench or Lab. Chemists	...	5	200-10-300 (M.P. 250/-)	25%	18,750/-	(a) Degree in Science or Agriculture with experience or apprenticeship in the laboratory of a sugar factory for at least one season. (b) Under Graduates (atleast Inter Science) together with diploma or certificate in one of the courses in Sugar manufacture.
11. Head Pan-man	...	1	-do-	25%	3,750/-	(a) Matric. together with diploma in Pan-Boiling from a recognised institution together with practical experience of working as a panman for not less than 5 years. (b) Non-matric but literate and having over 10 years practical experience of working as a Panman in Sugar factories.
12. Pan-men	...	4	150-10-250 (M.P. 200/-)	30%	12,480/-	Same as in No. 10 above except that in category (a) a practical experience of two seasons as apprentice panman is necessary whereas in (b) a practical experience of 3 years is necessary.
					1,57,800/-	

M.P.=Mean Pay; mean of the minimum and maximum pays of the scale.

## "STANDARD MUSTER"

*Recommendations for the minimum staff to be employed in a normally equipped sugar factory*

Post	No.	Remarks
<i>Office :</i>		
General Manager or Manager ... ..	1	All the year round.
Asstt. Manager or Fy. Manager or Cane Manager ... ..	1	-do-
Office Superintendent ... ..	1	-do-
<i>Accountant :</i>		
Cashier ... ..	1	-do-
Stenographer ... ..	1	-do-
Typist-cum-record keeper ... ..	1	-do-
Sugar Clerk ... ..	1	-do-
Despatcher ... ..	1	-do-
Railway Clerk ... ..	1	-do-
Cane Clerk ... ..	1	-do-
Miscellaneous Clerks ... ..	2	-do-
Peons ... ..	2	-do-
Daftari ... ..	1	-do-
<i>Time Office :</i>		
Head Time Keeper ... ..	1	-do-
Asstt. Time Keepers ... ..	2	-do-
Peon ... ..	1	-do-
Asstt. Time Keepers ... ..	2	For the season only.
<i>Sugar Godown :</i>		
Godown Keeper ... ..	1	All the year round.
Marksman ... ..	1	-do-
Palledars (At the rate of one per 100 bags production)		During the season.
<i>Stores :</i>		
Storekeeper ... ..	1	All the year round.
Ledger Clerk ... ..	1	-do-
Issue Clerk ... ..	1	-do-
Coolies ... ..	2	-do-
Asstt. Store Keeper ... ..	2	For the season only.
Coolies ... ..	4	For the season only for lime, sulphur and bag marking, etc.

*Workshop :*

Workshop Engine Driver (Where electric drive, no driver required) ... .. 1					All the year round.
Turners	(As many as the number of lathes)			...	-do-
Lathe coolies	...	...	...	1	For all lathes, All the year round.
Blacksmiths	...	...	...	2	-do- -do-
Hammermen	...	...	...	2	-do- -do-
Pattern Makers	...	...	...	1	-do- -do-
Carpenter and Coolie	...	...	...	2	(one each lathe) -do-
Moulder	...	...	...	1	-do- -do-
Asstt. Moulders	...	...	...	2	(Where a big workshop) -do-
Moulder Coolies	...	...	...	4	(is attached to the fy.) -do-
Head Mistri	...	...	...	1	-do-
Fitters	...	...	...	4	-do-
Fitter coolies	...	...	...	4	-do-
Electrician	...	...	...	1	-do-
Electrician coolie	...	...	...	1	-do-
Khalasis	...	...	...	10	-do-
Khalasi Jamadar	...	...	...	1	-do-
Draughtsman	...	...	...	1	(Where a big workshop) -do-
Oilman-cum-beltman	...	...	...	1	-do-
Clerk	...	...	...	1	All the year round.
Shift Engineers	...	...	...	4	-do-
Mason	...	...	...	2	-do-
Coolies	...	...	...	2	-do-
Overseer	...	...	...	1	-do-

*Watch and Ward and General :*

Watch and Ward				(A gang of 24)	All the year round.
Doctor	...	...	...	1	-do-
Compounders	...	...	...	2	-do-
Midwife	...	...	...	1	-do-
Sweeper for hospital	...	...	...	1	-do-
Sweepers	...	...	...	4	For outside factory.
Sweeper	...	...	...	1	per shift for the season only.
Chief Engineers Orderly	...	...	...	1	For the year round.
Chief Chemists Orderly	...	...	...	1	-do-
Manager's Orderly	...	...	...	1	-do-
Asstt. Managers Orderly	...	...	...	1	-do-
Guest House Servant	...	...	...	1	-do-
Gardener	...	...	...	1	-do-
Coolies for Garden	...	...	...	4	-do-

*(Seasonal Staff) Cane Deptt. (For Outside Centre) :*

Incharge Supervisor	...	...	...	1	For all centres.
Incharge clerk	...	...	...	1	For each centre.
Weighment clerk	...	...	...	1	For each weigh-bridge.
Chaukidar	...	...	...	1	For each centre.
Loading coolies	...	...	...	2	Per 100 maunds cane.
Shunting coolies	...	...	...	10	Whenever necessary.
Shunting mate	...	...	...	1	

*Cane Department (For inside the factory)*

per shift

Cane checking clerk	...	...	...	1	Whenever necessary.
Coolies	...	...	...	1	-do-
Weighment clerk for gross weight	...	...	...	1	Per gross weighbridge per shift.
Chowkidar	...	...	...	1	Per weigh-bridge per shift.
Weighment clerk for tare weight	...	...	...	1	Per tare weigh-bridge per shift.
Coolie	...	...	...	1	For all weigh-bridges per shift.
Ledger clerks	...	...	...	2	Per shift.
Cane supervisor or Inspector	...	...	...	1	-do-
Cane carrier mate	...	...	...	1	-do-
Cane feeding coolies at the rate of 1 per 50 mds. of cane feeding per hour.					

*Engineering Department :*

Cane knife engine driver	...	...	...	1	per shift
Cane carrier engine driver	...	...	...	1	-do-
Oilman for knife engine as well as for cane carrier engine	...	...	...	1	-do-

*Mill Engine and Gearing :*

Driver	...	...	...	...	1	Per shift and per engine.
Oilman	...	...	...	...	1	-do-
Mill fitter	...	...	...	...	1	-do-
Mill fitter coolie	...	...	...	...	1	-do-
Mill house pump man (raw juice and maceration pump, i.e., 4 pumps)	...	...	...	...	1	Per shift.
Mill oilman	...	...	...	...	1	Per shift.
Mill coolies (At the rate of 2 per mill and one for crusher	...	...	...	...	...	-do-
Khalasi	...	...	...	...	1	-do-
Oilman for collecting and issuing oil at different stations	...	...	...	...	1	-do-
Oilman for filtering oil	...	...	...	...	1	For day shift only.

(Note—Where crystallisers, centrifugal pressure pumps, spray, Injection vacuum pumps etc, are driven by electric motors, there no drivers are required, but one electrician and one asstt. electrician is necessary. Under such conditions the juice, syrup and molasses pumps, etc., must be looked by the Manufacturing Department.)

*Boilers :*

Boiler attendant	...	...	...	1	
Waterman per battery of boilers	...	...	...	1	
Boiler feed pump man per battery of pumps	...	...	...	1	
Coolie for cleaning firebar	...	...	...	1	per furnace.
Coolie for feeding bagasse	...	...	...	1	Per furnace or only one if there are arrangements for automatic feeding.
Coolies for removing bagasse	...	...	...	4	
Fireman	...	...	...	1	Where coal is fired.
Driver bagasse carrier engine	...	...	...	1	
Greaser for bagasse carrier, and cane carrier	...	...	...	1	
Wireman	...	...	...	1	
Driver electric engine	...	...	...	1	
Switch board attendant	...	...	...	1	

*Boiling House :*

Fitter	...	...	...	...	1	
Asstt. Fitter	...	...	...	...	1	
Fitter helper	...	...	...	...	1	
Beltman	...	...	...	...	1	
Drivers	...	...	...	...	1	Per engine.
Pumpman for evaporator pumps	...	...	...	...	1	
Pumpman for raw juice and sulphured juice pumps	...	...	...	...	1	
Pumpman for muddy juice	...	...	...	...	1	
Pumpman for clear juice	...	...	...	...	1	
Pumpman for molasses pumps	...	...	...	...	1	
Oilman for shafting	...	...	...	...	1	
Water service pumpman	...	...	...	...	1	

*Manufacturing Department :*

Juice measuring or weighing coolie	...	...	...	1	
Lime & sulphur dioxide preparation coolies	...	...	...	2	
Coolies for juice and syrup sulphuring	...	...	...	3	
Juice heater coolie	...	...	...	1	
Evaporator operator	...	...	...	1	
Eliminator coolie	...	...	...	1	
Settling tanks coolies	...	...	...	...	

Filter presses ... ..	2	Coolies per press in operation and 2 Coolies extra.
Juice section mate ... ..	1	
Panman ... ..	1	(Sufficient for 4 pans but where there are
Asstt. Panman ... ..	1	more than 4 pans one
Pan coolies ... ..	3	more asstt. panman may be employed.)
Coolies for crystallisers ... ..	2	Per battery.
Centrifugal man for foreworkers ... ..	1	For 2 machines.
Centrifugal man for afterworkers ... ..	2	For 3 machines.
Centrifugal and Drier station mate ... ..	1	
Magma man ... ..	1	For magma mixer.
Hopperman .... ..	1	For Hopper.
Drier and Grader coolies ... ..	2	
Bagging and Weighing coolies ... ..	4	
Bagging clerk ... ..	1	
Sewing of bags ... ..	1	Man per 23 bags per hour.
Laboratory chemists ... ..	5	in all the 3 shifts.
Laboratory boys ... ..	6	-do-
Manufacturing chemists ... ..	3	-do-
Laboratory Incharge ... ..	1	

### ENGINEERING AND OTHER STAFF DURING OFF SEASON

The three mill house fitters and three boiling house fitters and their one reliever, these seven fitters together with four boiling house assistant fitters and their coolies must be able to complete all the overhauling work in the off season. But where there are more units than usual the services of half a dozen engine drivers with half a dozen coolies can be engaged.

A gang of 4 coolies per boiler from amongst the boiler staff and all the four boiler attendants in all are required for overhauling, painting and other necessary repairs of boilers.

A gang of 16 coolies with one manufacturing chemist is required for cleaning and painting of all the manufacturing units.

The remaining two manufacturing chemists and four Lab.-chemists are required for cane development work.

*Note*—(1) The above list will have to be supplemented with suitable staff in order to provide for weekly rest to the workers as required by the Factories Act.

(2) The above list is exclusive of the following :—

- (i) Chief Engineer.
- (ii) Chief Chemist.
- (iii) Dy. Chief Engineer.
- (iv) Dy. Chief Chemist.
- (v) Head Panman.

## 20TH ANNUAL CONVENTION OF THE S. T. A. : K. M. MUNSHI'S ADDRESS

Mr. K. M. Munshi, Minister for Food and Agriculture, Government of India, emphasised the need for continued and vigorous work, research as well as organisational, in all aspects of sugar industry.

Mr. Munshi inaugurating the twentieth annual convention of the Sugar Technologists' Association at the Indian Institute of Sugar Technology said "Sugar technicians in our country are in no way inferior to those in other countries. This is reflected in the technical efficiency of the industry which has improved considerably with its expansion. But the pace of improvement is not as quick as it should be. By evolving improved methods of manufacture the cost of sugar production can be considerably reduced."

"The quality of our sugar has to be brought up to the international standard," he added.

The Food Minister said that the conditions of cheap labour and cheap cane which were mainly responsible for the quick development of the sugar industry in Uttar Pradesh and Bihar during the 30's of this century did not exist now. At the same time, a serious world competition faced the industry. Unless there was a careful scientific approach to the problem of production, the industry would find it hard to survive.

### TECHNICIANS' ROLE

Speaking about the role of technicians, Mr. Munshi said unfortunately a large section of industrialists did not appreciate their role for the complete success of industrial undertakings. If the industry was to thrive, the technicians must be made permanent and maintained in conditions of high efficiency.

Money that the shareholders made was the result of capital, labour and skill and in the world of today if capital was necessary and labour essential, skill of the highest kind was the very basis of existence, he pointed out.

The Food Minister strongly pleaded for the continuance of selective control as a solution for the sugar problem and said that the new policy had been well received by all concerned.

Production had increased from 9.8 lakh tons in 1949-50 to 11.1 lakh tons during 1950-51. The Government, he said, had therefore decided to continue the policy of selective control during the next year also. Ninety-five per cent of the average production of each factory during the two years 1948-49 and 1949-50 was proposed to be fixed as the basic quota of the factory. This formula would give an incentive and make the consumer a sharer in the gains. Half of all excess production of a factory over its basic quota would be allowed to be sold in the free market and the other half reserved for distribution at controlled price. By this formula the consumer would be getting a share of extra production at controlled price.

### WARNING TO FACTORIES

The Food Minister said that several factories attempted to raise prices by withholding free sale of sugar. He had, therefore, been compelled to watch the market ceaselessly and if this interference with the price control continued, new measures would have to be devised to fight it.

Mr. Munshi drew the attention of the Governments of Uttar Pradesh and Bihar that if they continued to treat the sugar industry as "kamdhenu" perpetually giving as much milk as desired, a time would soon come when the sugar industry in these regions would become uneconomical and gradually lose its importance. They must render unto the industry the things which were those of the industry such as facilities and care essential for its present strength and future.

The Food Minister continued: "While the policy of selective control in sugar will enable us to tide over our present difficulties, the main problems of the sugar industry have to be tackled on a wide and long-range basis. For securing the highest efficiency in this industry a very close liaison between the field and factory is essential. The factory with its technical personnel (including agricultural experts) should help the intensive cultivation of the cane. Bombay, with its factory farms, is in an enviable position. Wherever possible its example needed to be followed.

Mr. Munshi advised the selected sugar technologists to join the land transformation training schools which the Food Foundation would enable the Government of India to put up in the country under the 10-year programme. Attention then could be paid to proper rotation and to ways and means to prevent the soil from being exhausted.

The Indian Central Sugarcane Committee, Mr. Munshi said, had already launched a five-year sugarcane development scheme in various states with the help of a special grant from the Government of India amounting to Rs. 75 lakhs.

If these schemes functioned properly, it was expected that they would go a long way in stepping up the total production and acre yields of sugarcane during the next five years and this would bridge the gulf between the production of and demand for sugar.

Mr. Munshi added: "We are also planning to shift factories, which are from the point of view of availability of raw materials badly situated, to better sites. I hope to be able to announce shortly the assistance which the Government will be able to give to such factories."

He was glad to note that the committee recently set up by the Uttar Pradesh Government to make recommendations for the rationalisation of the industry in the state had also thoroughly examined the questions relating to cane development and shifting of uneconomic units.

The minister said that he had also set up an expert committee to examine the Srivastava formula in the light of changing conditions. He was confident that with the improvement that would be effected as a result of all these endeavours the target of production of 15 lakh tons of sugar at sufficiently cheap rates would be achieved.

### PRESIDENT'S SPEECH

Presiding over the convention, Mr. Deshraj Narang, president of the Sugar Technologists Association of India, congratulated Mr. Munshi and the Government of India for having adopted a judicious rational policy in regard to sugar industry last year which had paid immediate dividends and thereby proved to be to the advantage of all parties concerned. But fixing the



cane price at a slightly higher level and by instituting control on the price and transport of gur and khandsari sugar, the supplies of sugarcane to the sugar mills were ensured and by affording an incentive in the shape of free market and regional prices, conditions were created for an increase in production, he said.

Mr. Narang said: "I do hope that the same policy which gave good results last year will be followed this year also. Rapid changes in policy are not conducive to the growth of an industry and the sooner we come to a stablished state of affairs the better it is for all concerned."

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## Chapter XXIII

### FUTURE PLANNING AND DEVELOPMENT

#### SURVEY OF SUGAR INDUSTRY : COMMITTEE APPOINTED BY U. P. GOVT.

With a view to the future planning and development of the sugar industry in Uttar Pradesh the Government of U. P. appointed the following Committee in March, 1951, to make a survey of the industry and make suitable recommendations.

The terms of reference of the Committee were as follows :

- (i) To investigate and suggest means of removing the causes of the comparatively short cane crushing season in U. P.
- (ii) To examine the working of the cane development organisation and to suggest ways and means of securing the more active co-operation and assistance of all the parties concerned.
- (iii) To examine and report whether and to what extent any incentive schemes for cane supply are feasible, e.g., payment according to sucrose content, bonuses for extra supplies during periods of best recovery and bonuses for supplies in excess of certain fixed quantities.
- (iv) To examine and make recommendations about the feasibility of utilising spare electric power from factories for irrigation purposes particularly in the off-season.
- (v) To examine and make recommendations as regards the best means of utilising during the off-season both the plant and the workshop facilities available in sugar factories with a view to securing the employment of the available resources for more and varied production and thus reducing the costs of the sugar-industry; and
- (vi) To generally examine the problems of the sugar industry with a view to making sugar production in the U. P. more competitive.

Mr. T. Swaminathan, Secretary to Government, Industries Department (*Chairman*); Mr. D. R. Narang, M.L.C., Basti Sugar Mills Co., Ltd; Mr. R. P. Nevatia, Hindusthan Sugar Mills Ltd., Gola-Gokarannath (Kheri); Mr. Hari Raj Swarup, Upper Doab Sugar Mills, Ltd., Shamli (Muzaffarnagar); Mr. J. M. Bannerman, Balrampur Sugar Co., Ltd., Tulsipur (Gonda); Mr. A. Boer, Raza Sugar Co., Ltd. (Rampur); Mr. Har Sahai Gupta, M.L.C., Shanker Agricultural Farm (Moradabad); Mr. Daulat Singh, Mr. A. N. Jha, Secretary to Government, Agriculture Department or his representative; Mr. A. D. Pant, Cane Commissioner, U. P. and Mr. B. K. Mukerji, Director, Sugarcane Research Station (Shahjahanpur). M. Zunnurain, Under-Secretary to Government, U. P., Industries Department was the Secretary of the Committee.

## RECOMMENDATIONS OF THE COMMITTEE

A new all-India organization for the sugar industry is proposed by the expert committee. Unlike the liquidated Sugar Syndicate, the proposed organisation would be independent in character and would have monopoly in wholesale sale of sugar.

During the present time of high prices it could accumulate a large fund by charging about Re. 1/- per maund extra. The organisation would take steps to safeguard against a slump in prices such as occurred in 1939-40. It could have a fund of about Rs. 10/ crores within the next three years and the money could be used to subsidize sales and exports.

Among suggestions of more immediate application are measures to stimulate production of sugarcane which in some respects are similar to those recommended for increasing food production such as immediate increase in irrigation facilities in the eastern districts where the industry has come up against exceptional difficulties, use of improved seed and manure and development of farms and plant protection service.

It found lack of rural transport a major hurdle and recommended a minimum construction programme and commended the cane development organisation created in Bihar. Cane development councils, it suggested, should be provided with greater funds by the cane co-operative societies, factories and the Government. The committee felt that shifting of a few factories in eastern districts with financial assistance from the Central and State Governments was inescapable but fixing of regional prices for sugar could perhaps take away the urge to move as even uneconomic factories would by getting a higher price just manage to survive if not make profit.

The committee disliked dual agencies for supply and recommended that where two-thirds of the cane is being obtained by a factory through cane societies the remaining third too should pass through this agency including the cane raised by a factory in its own farm. The committee advocated enhanced penalties for failure to supply stipulated quantities of cane as well as penalty for a factory's to take in agreed quantities. The Reserve Bank, the committee suggested, should ask banks to advance to factories up to 90% of the value of sugar produced during the season to enable them to pay more promptly for the cane purchased, but for this lag it held the cane societies to be more blameworthy. The amount outstanding from last year was Re. 1 crore against total cane purchases of Rs. 29 crores. The societies, it recommended, should be compelled to pay interest to the growers, for outstandings which exceeded 30 days after the close of the crushing season. It recommended that so long as sugar was controlled, use of power crushers in areas reserved for factories should also be controlled. During this period of control parity between foodgrain and sugar prices should also be maintained to ensure maximum supply of cane to the factories.

The committee advocated utilization of the factories' spare and off-season capacity for generation of electrical energy but was sceptical about development of other auxiliary industries though individual factories might be able to develop particular side-lines. Some scope, however, existed for the manufacture of DDT in the eastern districts.

Experts, examined, told the committee that the industry was technically quite efficient but suffered from unbalanced plant, a defect which could be rectified in some cases by extra

equipment. For example, a double set of evaporators could increase the crushing season by 10 days because it would ensure continuous running of the factory.

Finally, it was the committee's view that the industry in U. P. and Bihar had a great future provided adequate thought was given to cane development and there was improvement in efficiency at all points from the farm to the sales organization.

### SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

The Committee's conclusions and recommendations are summarized as hereunder :

*Terms of Reference Nos. 1 to 3 :*

(1) The following factors militate against increase in sugar production in the Uttar Pradesh as also against reduction in the cost of production:

- (i) Excessive concentration of factories, particularly in the eastern districts resulting in inadequate supplies of cane.
- (ii) Economic disparity between the prices of crystal sugar, gur and khandsari sugar.
- (iii) Low yield of cane per acre which is due mainly to lack of irrigation facilities, manuring and co-ordination between research and development and to the small size of holding, and
- (iv) Lack of communications, (Paragraph 6).

*Irrigation Facilities :*

(2) In the eastern districts 560 tube-wells should be set up with a power station of 5,000 K. W. at Gorakhpur.

Extension of irrigation in the western districts should also be considered early (Paragraph 7).

(3) Power offered by factories should be utilized for developing tube-wells. (Paragraph 8).

(4) Where it is not feasible to supply electrical energy tube-wells should be developed by the use of diesel oil engines (Paragraph 9).

(5) Masonry wells should be encouraged by payment of subsidies and by ensuring provision of steel and cement (Paragraph 10).

*Seed, Varieties, Ratoon, &c.:*

(6) An officer of the Cane Department should proceed to Bihar to study in detail their system of seed supply and varietal tests (Paragraph 11).

(7) Wherever possible the Cane Co-operative Societies should be assisted to set up model farms. Factories which possess farms should assist the Director, Research Station in conducting field tests (Paragraph 12).

(8) Though too many varieties for a region are not recommended a few varieties should always be evolved as a stand by and efforts should be concentrated on providing good and healthy seed (Paragraph 13).

(9) The purchaser of a new variety should be subsidized at annas 2 per maund (Paragraph 14).

(10) Planting should be planned so as to provide early and late maturing varieties. Ratoon crop needs more attention particularly in the eastern districts (Paragraph 15).

*Manures:*

(11) Application of phosphate to the soil, particularly in the eastern districts, is recommended (Paragraph 16).

(12) The movement control over sanai should be abolished (Paragraph 17).

(13) *Plant Protection*—A Plant Protection Officer and Regional Officers should be attached to the Director, Sugarcane Research Station, Shahjahanpur (Paragraph 19).

(14) *Soil*—Chemists in sugar factories should be trained at the Research Station in soil, manure and other analyses (Paragraph 20).

(15) *Implements and Machinery*—Workshop facilities should be provided for the maintenance and repairs of tractors and implements. Loans should be advanced at a favourable rate of interest for the purchase of tractors (Paragraph 21).

(16) *Small Holdings*—Enlarging of units of sugarcane cultivation is very necessary particularly in the eastern districts. The District Planning Committees should give preference to cane areas in consolidation and co-operative farming (Paragraph 22).

*Transport:*

(17) 501 miles of C. C. tracks sanctioned under the Five-Year Plan should be taken in hand, through Development Councils. In all other plans of road communication, road widening, etc., preference should be given to the sugar areas (Paragraph 23).

(18) A meeting should be arranged with Railway Officers to ensure movement on a priority basis of materials like kankar and cement, etc. (Paragraph 24).

(19) Construction of culverts and drains on kachcha roads should be undertaken (Paragraph 25).

(20) Facilities including long-term loans on favourable rates of interest should be made available to factories for building tramways (Paragraph 26).

(21) Deduction from the cane price towards rail freight is not considered opportune at present (Paragraph 27).

(22) *Amenities*—Where factories do not provide the requisite amenities at the purchasing centres, the Cane Commissioner may have the amenities provided through Cane Societies at the cost of the factories (Paragraph 28).

*Cane Development Organization :*

(23) An Officer from Uttar Pradesh should be deputed to study in detail the development organization and programme in Bihar.

The functions of the Development Council should be enlarged so as to comprehend all developmental activities (Paragraph 29).

(24) There should be a fully adequate and separate organization to deal with sugarcane. The posts of Cane Commissioner and Sugar Commissioner should be amalgamated. The Director, Sugarcane Research Station should be attached to the Cane Department as also an Agricultural Engineer and an Executive Engineer, Public Works Department (Paragraph 30).

(25) On no account should the field work of the Cane Department be combined with the work of other departments and the existing organization based upon Kamdars should not only be kept intact but strengthened (Paragraph 31).

(26) *Funds of Development Councils*—Substantial funds should be made available to Development Councils by increasing the contribution by Co-operative Societies and factories to 50 per cent. of their commission proceeds and by advancing of money by Government (Paragraph 32).

*Other Factors :*

(27) *Shifting of Factories*—Government of India and the State Government should give financial assistance and should announce beforehand the facilities they would be extending. Fixing of regional prices of sugar should be discontinued after a specific period (Paragraph 34)(i).

(28) *Dual Agencies for Cane Supplies*—Where two-thirds of the supplies of cane to a factory are obtained through Cane Societies the remaining third should also be obtained through the same agency (Paragraph 34 (ii) ).

(29) *Bonding*—Penalty for short supplies by Societies should be raised to 20 per cent of cane price and should be strictly enforced. Similarly penalty for short consumption by factories should be strictly enforced (Paragraph 34 (iii)).

(30) *Payment of Cane Price*—Factories should pay interest on the arrears of cane price remaining due 30 days beyond the close of crushing. Societies should pay interest to growers. Banks should be requested to advance to factories up to 90 per cent of the value of sugar. The Cane Union Federation should be requested to reduce the rates of interest (Paragraph 34 (iv)).

(31) *Dates of start or closure*—No hard and fast rules can be laid down as regards the date of start or closure. But the crushing season has to be lengthened so far as possible in the interests of maximization of sugar production.

No price bonus schemes are considered feasible.

The use of power crushers should be controlled by licence within the reserved areas so long as sugar is controlled (Paragraph 34 (v)).

(32) *Best utilization of available sugarcane*—The Bihar system of drawing cane on the basis of maturity, after a field survey and maturity test of the standing cane, should be experimented upon in the Uttar Pradesh with a view to ensuring maximum recovery. An Officer of the Cane Department should study the actual working of the scheme in Bihar.

Part of the profit realized from extra recovery of sugar may be passed on to the cultivator in the shape of bonus (Paragraph 34 (vi)).

(33) *Parity between foodgrain and sugarcane prices*—During control, prices of other foodgrains as also the return fetched by sugarcane by the manufacture of gur should be taken into account in fixing cane price (Paragraph 34 (vii)).

*Terms of Reference No. 4 :*

(34) Power offered by factories should be utilized for developing tube-wells and work should be started immediately through Development Councils. The cost of transmission lines should be borne by Government (Paragraph 36).

*Terms of Reference No. 5 :*

(35) Possibilities of sugar factories starting ancillary industries and of such industries helping to reduce the cost of production of sugar are inherently limited due to various factors. Field for exploitation of by-products and of workshop and other facilities is also limited. Individual industrialists who may be interested in the ancillary industries suggested by the Sub-Committee concerned should pursue the matter further.

Workshop facilities must, however, be made available for the repair and maintenance of tractors and agricultural implements (Paragraphs 37-40).

*Term of Reference No. 6 :*

(36) *Factory Plants*—During the off season each sugar factory should invite the staff of the Indian Institute of Sugar Technology to report to it on the additions and alterations required in the plant. The Industrial Finance Corporation should be approached for loans and/or other assistance (Paragraph 41).

(37) Factories should provide themselves with double sets of evaporators so that they are not closed for cleaning, etc., during the crushing season (Paragraph 42).

(38) *All-India Marketing Organization and Fund*—Steps should be taken to organize an independent All-India Marketing Organization with a monopoly in the wholesale sale of sugar and to accumulate a Fund which may be utilized to subsidize the industry in its lean years (Paragraph 43).

(39) *Standing Sugar Industry Committee*—The Committee should be made a permanent body meeting at least once a quarter and doing detailed work through Sub-Committees (Paragraph 44).

(40) The Uttar Pradesh and Bihar have a great future as regards the sugar industry. Other States like Madras and Bombay, owing to inherent drawbacks have only a limited scope. Any large scale shifting of the sugar factory from Uttar Pradesh and large scale shifting of the sugar factory from Uttar Pradesh and Bihar to other areas, is therefore, not feasible (Paragraph 45).

### JAIPURIA SCHEME FOR DISPERSAL OF SUGAR FACTORIES IN U. P.

In the course of a note, Mr. Mangtu Ram Jaipuria, Chairman of two sugar mills in East U. P. draws attention to the miserable position of sugar factories in the East U. P., as a result of their not getting cane for crushing, and suggests a "rational" way of meeting the difficulty of the industry. Such, in his opinion lies in the shifting of factories from their present localtions to places where cane is in abundance. In support of this contention of his, Mr. Jaipuria has given certain facts and figures. Thus, out of 64 factories in the whole of U. P. as many as 31 factories are situated in the eastern districts of Deoria, Gorakhpur, Basti, and Gonda. All these factories have been experiencing acute shortage of cane supplies, with the result that the

average duration of their crushing season has been very short and the production of sugar very low. The total quantities of cane actually crushed by these factories during the seasons 1946-47 to 1949-50, for instance, have been, on an average, 44.34 million maunds per annum, as against the total annual crushing capacity of as much as 96.00 million maunds. In other words, the factories are short of their requirements of cane to the extent of 51.70 million maunds, or about 55 per cent. Further, Mr. Jaipuria refers to effects of the method by which the prices are fixed by the Government on those factories. Since the prices of sugar are fixed on the basis of an average for all factories in the U. P., the factories in Eastern parts, he observes, have been very severely handicapped and have been losing heavily. Proceeding, he observes thus :

“Representations were, therefore, made to the U. P. Government in the past and the Government had agreed to the principle of subsidising these factories out of the proceeds of the molasses fund, but it would be appreciated that this process of compensation could not go on for long. Besides, if the Government’s plan materialises and the entire molasses produced by the sugar mills is used for the manufacture of power alcohol, then the Government would have to give this subsidy out of their other revenues. Moreover, the grant of subsidy, though it helps the factories temporarily, is not a solution of a standing problem that tends to keep the capital invested in these plants idle and largely under-employed. This is National Waste.

“While the losses incurred by the shareholders of these unfortunate sugar mills are evident and have been recognised by the Government, what is probably not realised fully are the losses incurred by the Provincial, as well as Central, Governments themselves. The extra quantity of 5,17,00,000 maunds of sugarcane, if crushed by these factories, would mean a gain to the Provincial Exchequer of Rs. 96,93,750 per year as cess, at the rate of As. 3 per maund. In the case of the Central Government, assuming a recovery of 10 per cent., the loss on 51,70,000 maunds of sugar, or, say, 37,85,178.6 cwts. of sugar, equivalent to about 1,90,000 tons of sugar, at the rate of Rs. 3-12-0 per cwt. works out to Rs. 1,41,94,419-12. During the last four years, therefore, the Provincial Government has lost nearly Rs. 3,87,75,000, while the loss to the Central Government has been to the tune of about Rs. 5,67,97,680, only on account of the excise duty. The loss of 1,90,000 tons of sugar every year and the consequent hardships to the consuming public need not be reiterated here.”

As against the highly unsatisfactory conditions prevailing in the eastern districts, there are factories in the central and western districts of the U. P. which, according to Mr. Jaipuria, suffer actually from a glut of sugarcane, “so much so that the factories situated there do not find it possible to consume all the sugarcane produced there, and, in spite of these factories working for a much longer duration of season and also conversion of huge quantities of sugarcane into gur., growers are still left with sugarcane in the fields at the end of the season.” He further adds that there are still several places in Western U. P. which are ideally situated for cane cultivation and which are actually producing cane in abundance, but where no sugar factory has been put up so far. Mr. Jaipuria, therefore, feels that there is good reason for shifting half the number of factories in Eastern U. P. to these areas of surplus cane production. He is aware that the main obstacle to the shifting of factories thus is finance. With a view to overcoming it, he has hit on a plan, the salient features of which are as follows :



“On a very rough estimate the expenses of shifting an average factory would be in the neighbourhood of Rs. 15 lakhs. It is suggested that the factory situated nearest to the one being shifted and which would consequently get extra supplies of sugarcane release, as a result of the shifting of the factory, should contribute one-fourth of the total expenses of shifting the factory; the Provincial or the Central Governments, or both, should contribute half of these expenses; and the balance one-fourth should be contributed by the shifting factory itself. If half the number, i.e., 15 factories, is shifted from these districts, it would mean a cost of about Rs. 2,25 lakhs, of which 25 per cent, i.e., Rs. 56.25 lakhs, could be contributed by the remaining 15 factories. This would mean even less than Rs. 4 lakhs per factory. But, as against this, those factories would be able to increase their duration from 60 days to 120 days and lower their cost of production by nearly Rs. 4 per maund. This would more than compensate the contribution made by them. The Government revenues would not at all be affected, as the entire quantity of cane which was being crushed by 31 factories would now be crushed by 15 factories and the amount of cess and excise duty collected would be the same. In fact the realisations of account of the income-tax would be higher, as a result of higher profits made by the 15 units remaining in these districts.”

As regards the Government's contribution, such will amount to Rs. 1,12,50 lakhs, but the Government could realise nearly double this amount in the very first season and the realisations in the succeeding seasons would be guaranteed. The following example would make the position clear:

“Assuming the average daily crushing capacity of the factories to be 800 tons each, one factory would crush about 26 lakh maunds of cane in a season of 120 days. Fifteen shifting factories would consume 3,90,00,000 maunds of cane and would yield, on the basis of 10 per cent recovery, 39,00,000 maunds of sugar. This sugar production would mean an amount of about Rs. 75 lakhs as cess, at the present rate of As. 3 per maund on cane crushed, to the State Government, and an amount of about Rs. 107 lakhs as excise duty to the Central Government, which also gets a fairly big amount of income-tax. It would thus be seen the gain to the Government is, more or less, certain if shifting is facilitated to take place.”\*

### ALLOCATIONS OF NEW UNITS : PLANS FOR DEVELOPMENT

The Government of India after considering the recommendations of the Sugar Panel set up in 1945 decided upon the establishment of 45 new sugar factories all over India. These new factories were to be set up for attaining a production of 18.5 lakh tons against the average normal production of 10,84,000 tons. Accordingly, the 45 new sugar factories were allocated to the different Provinces/States as under :

\* Vide “Commerce,” Bombay.

Provinces				States			
U. P.	...	...	4 units	Deccan States (including Kolha-			
Bihar	...	...	2 units	pur)	...	...	2 units
Bengal	...	...	5 units	Punjab States	...	...	1 unit (P)
Bombay	...	...	5 units	Hyderabad	...	...	1 unit
Madras	...	...	6 units	Travancore	...	...	1 unit.
Sind	...	...	1 unit (P)	Baroda	...	...	1 unit
C. P.	...	...	1 unit	Mysore	...	...	1 unit
Assam	...	...	2 units	Cooch Bihar	...	...	1 unit
Orissa	...	...	2 units	Indore	...	...	1 unit
Punjab	...	...	3 units	Gwalior	...	...	1 unit
N. W. F. P.	...	...	1 unit	Jaipur	...	...	1 unit
32 units				11 units			

The two units left over were kept in reserve to be allocated to areas which might prove to be most suitable for sugarcane cultivation after further investigation. The position had, however, to be reviewed after the partition of the country. Instead of 45 units, 47 new units have now been proposed to be allocated to the various States as under :—

Old Provinces				Old States			
U. P.	...	...	4 units	Hyderabad	...	...	1 unit
Bihar	...	...	3 units	Travancore	...	...	1 unit
Bombay (incl. two previously allotted to Deccan States Aundh and Jam-khandi) now merged in				Baroda	...	...	1 unit
Bombay	...	...	6 units	Mysore	...	...	1 unit
Madras	...	...	8 units	Cooch Bihar	...	...	1 unit
C. P.	...	...	1 unit	Malwa Union :			
Assam	...	...	2 units	(Indore—1; Gwalior—1)	...	...	2 units
Orissa	...	...	2 units	Jaipur	...	...	1 unit
E. Punjab	...	...	3 units	Cochin	...	...	1 unit
29 units				9 units			

Five units previously allotted to undivided Bengal under the old allocation plan have now been kept in abeyance at the instance of the West Bengal Government. Excluding five units for West Bengal, the remaining four units have been kept in reserve for allocation to States in consultation with the Ministry at a future date.

The State Governments approved the names of 23 firms and allowed them to establish new sugar factories under the Government of India Sugar Industry Expansion Scheme. The construction of new factories at the following places has either been completed or is in progress.

						<i>Daily Cane Crushing Capacity in Tons</i>
1.	Gaya Sugar Mills	...	...	...	... (in production)	850
2.	Etikoppaka	...	...	...	... (in production)	75
3.	Andhra Sugar Mills	...	...	...	... (under construction)	600
4.	Madura Sugar and Allied Prop. Ltd.	...	...	...	... (in production)	317
5.	Travancore Sugar and Chemicals Ltd., Travancore	...	...	...	... (in production)	500
6.	Nizam Sugar Factory, Munirabad, Hyderabad	...	...	...	... (under construction)	250/300

### MADRAS TO HAVE MORE SUGAR FACTORIES : GOVERNMENT'S ANXIETY TO ACHIEVE SELF-SUFFICIENCY

While the Planning Commission has been engaged in formulating a five-year development programme for the Indian Sugar Industry the Finance Minister of Madras announced, in his budget speech in Feb., '51 that, under the expansion programme of the sugar industry in the State, his Government had granted permission for five of the existing factories to expand their cane-crushing capacity and for the setting up of ten new factories. There are, at present, 13 sugar factories in the State, producing, in all, about 52,000 tons per annum, which, when the expansion programme is completed, is expected to increase to about 90,000 tons per annum. Of these ten proposed factories, two with a cane crushing capacity of 600 tons and 450 tons, respectively, per day, are to be set up in the immediate future, the former in the E. Godavari—W. Godavari—Krishna region and the latter in the N. Arcot-Chittoor region. In view of the urgent need to make the State self-sufficient in respect of sugar, the Government has expressed its readiness to consider the question of granting all reasonable facilities to the promoters for the establishment of the factories. Persons or companies with the necessary business experience and financial resources and who are anxious to start sugar factories in these areas in collaboration with local cane growers, "without expecting financial assistance from the Government," have accordingly been invited to apply for permission—the last date for submitting such details was the 15th of March '51.

The State of Madras, along with certain other regions in the Deccan and the South, is more eminently suited for the location of the sugar industry than the States of Uttar Pradesh and Bihar where the industry is at present largely concentrated from the point of view of availability of adequate and improved qualities of cane supplies. Such has been particularly so for the last ten years. According to the recent report of the Indian Tariff Board, Madras has been one of the three States which have gained considerably in their share of the cane area as well as cane production. Thus while the share of the U. P. and Bihar in the cane area has decreased from 75.6 per cent to 67.5 per cent., the share of Madras has increased from 3.19 per cent. to 6.10 per cent. Consequently, in respect of cane production also, while the share of the U. P. and

Bihar has decreased from 71.8 per cent. to 55.72 per cent., that of Madras has increased from 6.68 per cent. to 12.25 per cent. In other words, while the number of factories in Madras is just 9 per cent. of the total in the country, production of sugarcane accounts for more than 12 per cent. of the total cane production.

In spite of these, the sugar factories in that State have not achieved any progress worth the name. Out of the 12 factories, for instance, only one factory has a daily cane-crushing capacity of 850-1,000 tons, the rest having a capacity of not more than 400 tons per day, on an average. If this is compared with the minimum cane-crushing capacity of 800-1,000 tons per day required by a factory to be classified under "economic units" laid down by the Sugar Industry Panel in 1946 and accepted by the Planning Commission, almost all the factories in Madras State would have to be regarded as uneconomic. This suggests that the capacity of existing mills in the State could be safely doubled. As the recent meeting of the Planning Commission on Sugar Industry rightly stressed, before any new unit is allowed, efforts should be made to get the best out of the existing units by bringing them up to economic levels. Such should be done by ensuring adequate cane supplies to the factories and providing them with the necessary assistance to enable them to renovate their worn-out plant and machinery and to replace as also add to them.

The need for ensuring cane supplies, in particular, will be evident from the fact that the proportion of cane crop utilised in gur manufacture in that State is predominantly large, as much as 88 per cent. of the total cane supplies. Drawing attention to this aspect on more than one occasion, several experts in the sugar industry including the Union Food and Agriculture Minister, have been emphasising the need for each sugar factory drawing its supplies of cane from its own farms. If it is not possible to make such arrangements in regard to the existing factories in view of so many factors, especially the additional financial burden involved, steps might be taken to establish a long-term contract between the sugar factories and cane growers within a given radius of these factories for the steady supply of cane. As regards new factories, on the other hand, it is essential that the Government should impose a condition that they have their own sugarcane farms or be assured of cane supplies from neighbouring fields. In order to expedite this process, the Government of Madras, on its part, should extend irrigation facilities and bring more lands under sugarcane cultivation and also provide further facilities to improve the method of cane cultivation. This latter problem, as in other States, has not received adequate attention at the hands of the Government. Thus, inspite of the excellent work carried out by the Coimbatore Sugarcane Research Station, the yield of cane per acre in Madras has, more or less, remained stationary at 27.7 tons since 1930-31, against 75.4 tons in Hawaii, 56.20 tons in Java, and 41.41 tons in Peru. The Government of Madras would do well, therefore, to take active steps further to promote cane development in the State.

Mention might also be made of the need for giving the sugar factories adequate facilities to utilise the bye-products, for such will enable the factories to reduce the cost of producing sugar. That the Government of Madras is not unmindful of this need is evident from the fact that it has sanctioned the establishment of four distilleries to produce about 14.5 lakh gallons of power alcohol per annum.

## SIX NEW FACTORIES FOR BOMBAY

During the year under review, on February 2, 1951, it was reported that the Development Department of the Govt. of Bombay had granted permission to start six new sugar factories in the State which when gone into production are expected to increase production by 40,000 tons, the present production being 1.1 lakh tons. The total production in the State is thus expected to be 1.5 lakh tons against the requirement of 1.75 lakh tons under the existing rationing commitments at 6 ounces per head per week in Bombay city and 12 ounces per head per month in the districts, though under normal conditions of free trade the consumption is stated to be 3 lakh tons.

The largest among the factories is to be started with a capital of Rs. 30 lakhs and will have a production capacity of 12,000 tons per year. One of the factories, namely, the Bagaitdar Sugar Producers' Co-operative Society Ltd. has already started functioning and has a capacity for 5,500 tons and is started with a capital of 15 lakhs at Loni in Ahmednagar. Four of the factories will be in the Deccan, one in Baroda and one in Dharwar. The present number of factories, which is, 14, is thus likely to be increased to 20, if the anticipated expansion takes effect.

It is, however, doubtful, whether actual proposals for installation of fresh units will materialise in the near future, owing to enormously higher cost of machinery, and slender foreign exchange, etc.

### FINANCIAL AID FOR SHIFTING SUGAR FACTORIES IN U. P.

The Government of India would be willing to give financial help, if necessary, to those who want to shift their sugar factories from U. P. and Bihar to Bombay and South India, the Deputy Food Minister, Mr. Thirumal Rao, told Parliament on 11th May, 1951.

Mr. Ratnappa Kumbhar asked the Minister whether in view of the fact that the sugar content of the sugarcane in Bombay State was the highest, Government proposed to transfer some of the sugar factories from U. P. to Bombay State.

Mr. Thirumal Rao said that Government had already announced their policy in this regard and if any of the sugar factories in U. P. wanted to shift it to Bombay, Government would help them. Licences had also been issued for starting new factories in Bombay.

Government will provide them railway facilities for shifting the factory, issue import licences for new machinery and to some extent give financial help also.

### SUGAR FACTORIES IN SOUTH BIHAR : STATE GOVT. PLAN TO GIVE FINANCIAL AID

The Government of Bihar propose to give financial assistance to the Bikramganj, Bihta, Guraru and Dalmianagar sugar factories of South Bihar "to create conditions where factories resident in the State have ample opportunities to rehabilitate themselves in the state and become efficient units."

The assistance will include fixation in the next season of higher prices of sugar for South Bihar factories or failing that, release of a portion of sugar produced for free sale enabling South Bihar factories to pay higher sugarcane price or remit transport charges in competition with gur manufacturers.

It is officially learnt that the five sugar factories of South Bihar have been suffering losses for the last few years and may shift to some more suitable sites outside the state.

The following assistance is proposed to be given by the State Government :—

Grant of a sum of Rs. 5 lakhs to Bikramganj factory to meet part of the cost of shifting to Warsaliganj; postponement of the realisation of cess for the season 1950-51 for a period of three years pending decision at the end of that period on their prayer for remission of cess of this season;

Grant of loan of Rs. 2 lakhs each to Bihta, Guraru and Bikramganj factories for providing facilities for transport of cane by the purchase of tractors; and grant of loans of Rs. 7 lakhs to the Dalmianagar, Bikramganj, Bihta at three per cent in four yearly instalments.

### SUGAR INSTITUTE AT LUCKNOW

Mr. K. M. Munshi, Union Food and Agriculture Minister, informed that he had recently issued instruction to start immediately the building operations of the new sugar technological and sugarcane research institute at the Bhadrak farm at Lucknow and assured that adequate funds would also be made available for providing the necessary equipment and library facilities at the new Institute.

According to the plans approved by the Indian Central Sugarcane Committee, the Central sugar Institute will be having both the agricultural and technological sections.

The sugarcane section will be started afresh and the Indian Institute of Sugar Technology, Kanpur, will be shifted from its present building in Kanpur to the Bhadrak farm at Lucknow. The scheme for the new sugarcane and sugar institute, which it is estimated, will cost about Rs. 70 lakhs to the Central Government, will provide a well-planned and co-ordinated research centre for investigating all problems starting from the growing of the sugarcane to the production of the final end-product, namely, sugar, khandsari, gur and their bye-products.

The announcement regarding the building operations of the new sugarcane and sugar institute was made by Mr. Munshi in reply to the observations made at the twentieth annual convention of the Sugar Technologist Association of India, by Mr. Deshraj Narang, president of the association, who said in spite of the decision of the Indian Central Sugarcane Committee made several years ago and the availability of funds, a very suitable site and the plans of the buildings and laboratories of the Institute, somehow the execution of the plan was not taking a practical shape.

Mr. Munshi emphasised that the execution of the project now rested largely on the speed with which the Indian Central Sugarcane Committee and the director and staff of the Indian Institute of Sugar Technology could finalise arrangements for starting of the building operations.

## PLANNING COMMISSION'S TARGETS FOR 1955-56 :

### TARGETS FOR "PER CAPITA" CONSUMPTION

The emphasis for the short-term has been laid on raising the output of existing plants to their installed capacities. With increased output of sugarcane the industry will be able to work at full capacity and thus raise *per capita* consumption of sugar from 6.3 lbs. in 1949-50 to about 8.3 lbs. by 1955-56; the increased output of sugarcane will in fact be large enough to allow for a simultaneous expansion in the consumption of gur and khandsari from about 22.8 lbs. to about 24.4 lbs.

### ADDITIONAL PRODUCTION TARGET FOR SUGARCANE

The objective of the agricultural programme during the next five years is to secure an increase in the production of sugarcane in terms of gur by 6.9 lakh tons. The tentative distribution of the targets of additional production between different states is shown below.

<i>Name of State</i>									<i>Figures in thousand Sugar (Gur) tons</i>	
Bihar	...	...	...	...	...	...	...	...	50	
U. P.	...	...	...	...				...	410	
Bombay	...	...			...	...	...	...	84	
Madras	...		...	...	...	...	...	...	78	
Punjab		...			...	...	...	...	57	
West Bengal	...	...	...	...	...	...	...	...	11	
Total									...	690

### THE PROGRAMME OF EXPANSION IN SUGAR INDUSTRY IS GIVEN BELOW

1950-51 (In lakh Tons)		1955-56 (Estimated)	
Installed capacity	Production	Installed capacity	Production
15.20	11.00	15.40	15.00

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## DEFERRED PAYMENT FOR CANE ALLOWED

### Govt's Concession to U. P. Factories

#### *Centre urged to suspend excise duty*

The U. P. Government have been giving serious thought to the crisis facing the growers and the sugar industry because of glut in cane production and the inability of the factories to absorb the supplies due to tight financial position.

As a first step towards relief, Government have decided to allow factories to defer payment of two-sevenths of the price of cane bought by them. The factories will not have to pay the full price of Rs. 1/12/- per maund to the growers immediately. They will have to pay only Rs. 1/4/- in the first instance and they can pay the balance of eight annas when the situation eases.

Secondly, Government have decided not to adopt "Coercive methods" in the realisation of cess from factories. They will not be asked to make immediate payment.

Government have suggested to the Centre that they suspend for the present, realisation of excise duty on sugar payable by the factories.

The decision about deferred payment of price applies to cane purchased in the reserved zones. In other areas cane is being offered at less than the controlled price and at places even at 14 annas a maund, which is the estimated cost of cultivation.

The crisis has arisen because, attracted by last year's remunerative prices of gur, cultivators this year increased the acreage under cane, but gur prices have slumped, making it unprofitable to turn cane into gur.

There is, therefore, rush towards the factories which, however, are finding it difficult to cope with the supplies because they do not have the cash for it. Due to the slump the banks are reluctant to make advances and in fact have been asking factories to cover up the deficits, caused by the fall in sugar prices, in the margins of the advances made by them.

If the factories are not in a position to purchase cane, the growers may be forced to destroy it and Government are anxious to avert this.

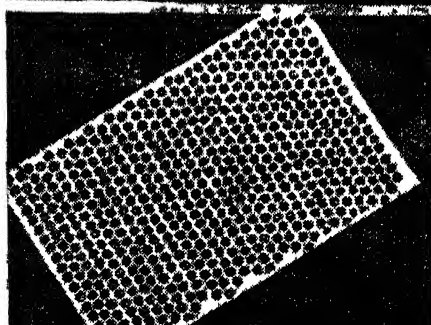
# SERVICE TO THE SUGAR INDUSTRY



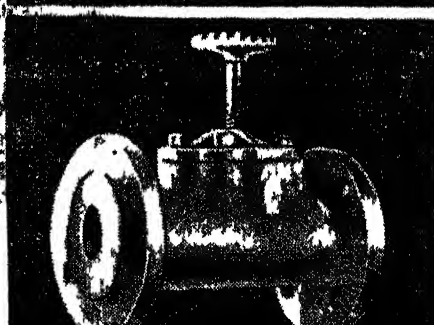
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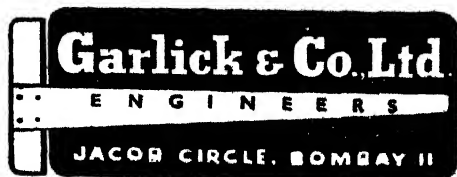


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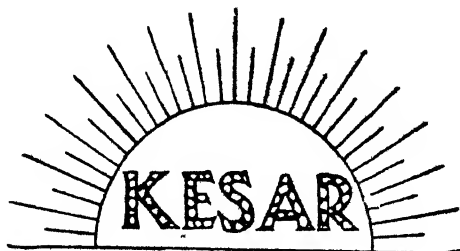
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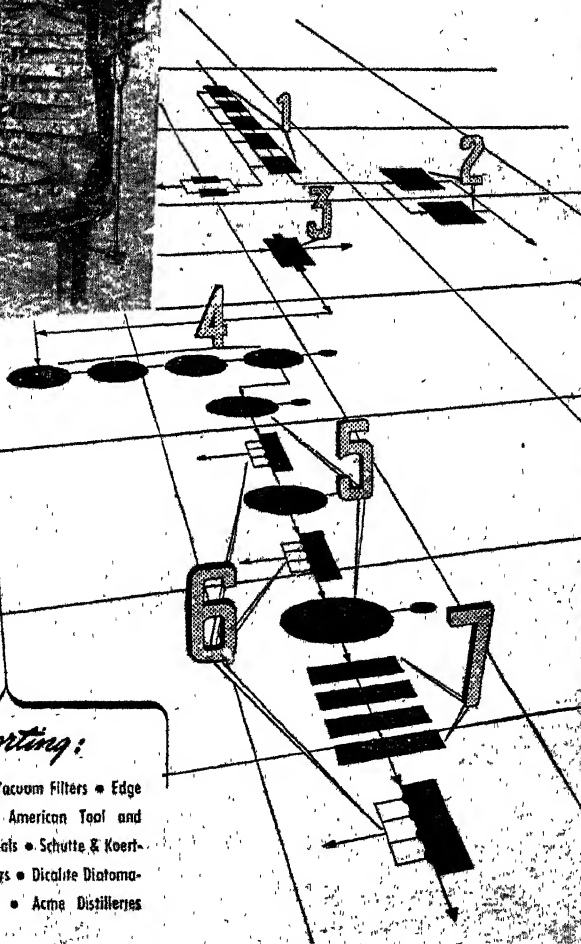
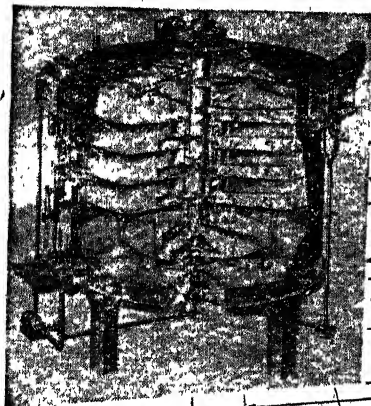
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